City of Cerritos
Department of Community Development
18125 Bloomfield Avenue Cerritos, CA 90703
Phone: (562) 916-1201
Website: permits.cerritos.gov

RESIDENTIAL AIR CONDITIONING APPLICATION GUIDE

Air conditioning units are governed by Section 22.22.700(22)(a), "Air Conditioning and Filtration Systems," of the Cerritos Municipal Code and which is available on the City of Cerritos website at cerritos.gov under CITY GOVERNMENT » City Laws, Codes and Regulations» Cerritos Municipal Code » Title 22 » Chapter 22.22.

How to Apply

1) Visit **permits.cerritos.gov** and set up a user account. Click "Log In" at top right corner. Select "Create a Profile". Then, enter contact information, and create a password.

2) The following supplemental attachments are required to be uploaded online for your application to be deemed complete:
   - ☐ Plot Plan (See page 2 for instructions on preparation of a plot plan, and pages 3-4 for setback requirements.)
   - ☐ Documentation to verify the ARI sound rating and SEER rating. This information may be found in the following documents:
     - Manufacturer cut sheet,
     - AHRI Certificate of Product Ratings, or
     - California Energy Commission Certificate of Compliance.
   - ☐ Property Owner's Consent to File Permit Application form (page 5).
   - ☐ Declaration Form (page 6).
     - If owner-builder, complete columns 1 and 3.
     - If contractor, complete columns 2 and 3.
   - ☐ Plan Check Determination Checklist (page 7).
   - ☐ If the property is located in a homeowners' association (HOA), an HOA Approval Form is required to be completed (page 18).

3) Optional:
   - ☐ If a Green Cerritos fee waiver is being requested, a "Green Cerritos Residential Building Permit Fee Waiver Application" is required to be submitted with proof of project eligibility (page 20).

All attachments must be uploaded as PDF documents.

The City will accept either an official digital signature or a scanned copy of a wet signature. Digital signatures must be timestamped through a digital signature platform, such as the "Fill & Sign" tool of the free Adobe Reader, DocuSign, or any other digital signature.

1) Business License Requirement
   - ☐ If applying as a contractor, please upload a copy of the Contractor State License Pocket Card. If you are applying as an agent on behalf of the owner or licensed contractor, you will need to also upload a notarized Letter of Authorization. A Letter of Authorization is only valid for one (1) year from the date of the authorized letter. Undated letters are not accepted. Notary stamps must be legible and valid. You are required to obtain a City Business License prior to permit issuance. You can apply for a City Business License at businesslicense.cerritos.gov. If you are applying as owner-builder, proof of property ownership is required to be submitted.

Should you have any questions, please do not hesitate to contact the Department of Community Development at (562) 916-1201.

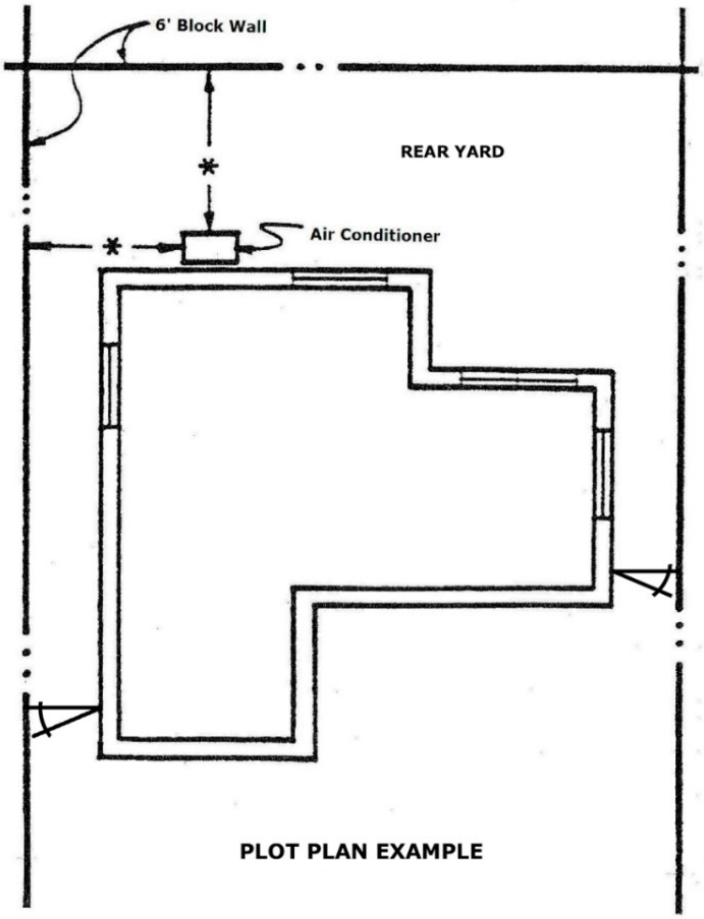
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City of Cerritos Requirements for a Residential Air Conditioning Installation

Plot Plan Requirements

All submitted plot plans shall be prepared as follows:

1) The plot plan of the lot shall show the location of the air conditioner condenser unit and its setbacks (*) from side and rear property lines. See following example.
2) The height and type of wall or fence around the lot shall be noted on the plot plan. Show solid gates on the plan.
3) Air conditioner units shall be mounted on a structurally approved mounting pad.
4) Portable window and wall-mounted air conditioner units may be permitted provided they are completely screened from the public right of way.
5) Air conditioners shall be placed in a location on the property where the least noise is heard by adjacent neighboring residents.
6) The submitted plan must reflect the actual layout of the subject residence.



PLOT PLAN EXAMPLE

City of Cerritos
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Setback Requirements

All submitted plot plans shall be prepared as follows:

1) Along One (1) Wall.

This section applies to air conditioning units placed along one (1) wall of the residence.

- On the following table, circle the Perimeter Wall Height for the wall closest to the air conditioning unit.
- Circle the AC Unit Sound Level (dB) for the subject unit.
- Circle the intersection of the column and row for the two items circled above. This is the Minimum Setback for the proposed air conditioning unit.
- The proposed setback from the closest property line must be greater than the Minimum Setback.

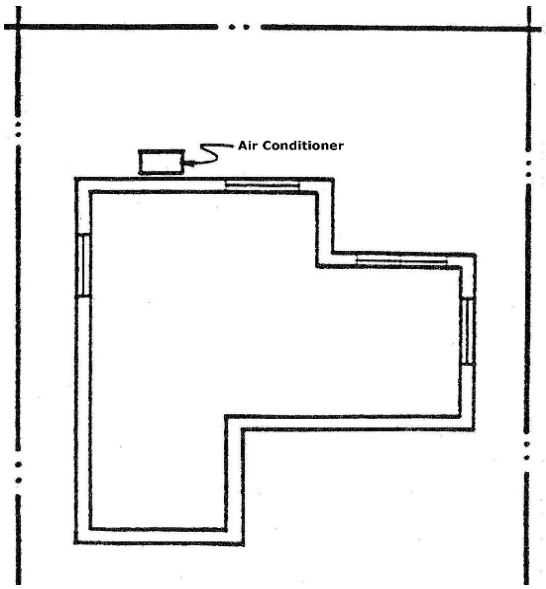


Table 1.1: Minimum Setback for AC Unit, ELF=1**

AC Unit Sound Level (dB)	Perimeter Wall Height						
	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"
66	1'-0"	1'-0"	1'-0"	0'-6"	0'-6"	0'-6"	0'-6"
67	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	0'-6"
68	1'-6"	1'-6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
69	1'-6"	1'-6"	1'-6"	1'-6"	1'-0"	1'-0"	1'-0"
70	2'-0"	2'-0"	1'-6"	1'-6"	1'-6"	1'-6"	1'-6"
71	2'-0"	2'-0"	2'-0"	2'-0"	1'-6"	1'-6"	1'-6"
72	2'-6"	2'-6"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"
73	3'-0"	3'-0"	2'-6"	2'-6"	2'-6"	2'-6"	2'-0"
74	3'-0"	3'-0"	3'-0"	3'-0"	2'-6"	2'-6"	2'-6"
75	3'-6"	3'-6"	3'-6"	3'-0"	3'-0"	3'-0"	3'-0"
76	4'-0"	4'-0"	4'-0"	3'-6"	3'-6"	3'-6"	3'-6"
77	4'-6"	4'-6"	4'-6"	4'-0"	4'-0"	4'-0"	4'-0"
78	5'-0"	5'-0"	5'-0"	4'-6"	4'-6"	4'-6"	4'-6"
79	6'-0"	5'-6"	5'-6"	5'-6"	5'-0"	5'-0"	5'-0"
80	6'-6"	6'-6"	6'-0"	6'-0"	6'-0"	5'-5"	5'-5"

** ELF = Equipment Location Factor[1]

[1]*The values in Tables 1.1 and 2.2 are derived from the following formula: Predicted dBA* $= L + 3E - \left[4.19\, ln\left(\sqrt{1+H^2} + \sqrt{S^2+H^2}\right) + 7.0796\right] - \left[8.6879\, ln(1+S) - 2.5372\right]$ *where L = Sound Level (dB) of AC Unit, E = Equipment Location Factor (1 or 2), S = Setback (feet) of AC Unit, and H = Height (feet) of Block Wall.*

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2) At Intersection of Two (2) Walls.

This section applies to air conditioning units placed within the right angle of two (2) walls of the residence:

- On the following table, circle the Perimeter Wall Height for the wall closest to the air conditioning unit.
- Circle the AC Unit Sound Level (dB) for the subject unit.
- Circle the intersection of the column and row for the two items circled above. This is the Minimum Setback for the proposed air conditioning unit.
- The proposed setback from the closest property line must be greater than the Minimum Setback.

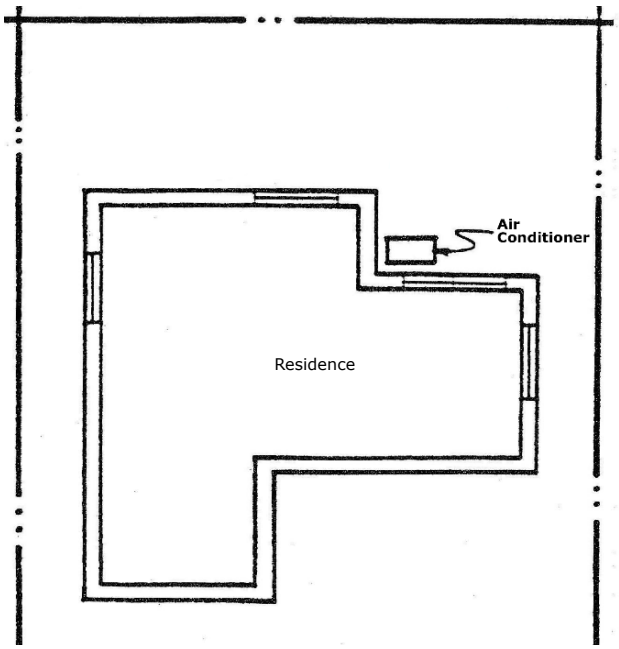


Table 2.2: Minimum Setback for AC Unit, ELF=2**

AC Unit Sound Level (dB)	Perimeter Wall Height						
	5'-0"	**5'-6"**	**6'-0"**	**6'-6"**	**7'-0"**	**7'-6"**	**8'-0"**
66	1'-6"	1'-6"	1'-6"	1'-6"	1'-0"	1'-0"	1'-0"
67	2'-0"	1'-6"	1'-6"	1'-6"	1'-6"	1'-6"	1'-6"
68	2'-0"	2'-0"	2'-0"	2'-0"	1'-6"	1'-6"	1'-6"
69	2'-6"	2'-6"	2'-0"	2'-6"	2'-0"	2'-0"	2'-0"
70	3'-0"	2'-6"	2'-6"	2'-6"	2'-6"	2'-6"	2'-0"
71	3'-0"	3'-0"	3'-0"	3'-0"	2'-6"	2'-6"	2'-6"
72	3'-6"	3'-6"	3'-6"	3'-0"	3'-0"	3'-0"	3'-0"
73	4'-0"	4'-0"	4'-0"	3'-6"	3'-6"	3'-6"	3'-6"
74	5'-0"	4'-6"	4'-6"	4'-0"	4'-0"	4'-0"	4'-0"
75	5'-6"	5'-0"	5'-0"	4'-6"	4'-6"	4'-6"	4'-6"
76	6'-0"	5'-6"	5'-6"	5'-6"	5'-0"	5'-0"	5'-0"
77	6'-6"	6'-6"	6'-0"	6'-0"	6'-0"	5'-6"	5'-6"
78	7'-0"	7'-0"	7'-0"	6'-6"	6'-6"	6'-6"	6'-0"
79	8'-0"	8'-0"	7'-6"	7'-6"	7'-6"	7'-0"	7'-0"
80	9'-0"	8'-6"	8'-6"	8'-6"	8'-0"	8'-0"	8'-0"

** ELF = Equipment Location Factor[2]

[2] *The values in Tables 1.1 and 2.2 are derived from the following formula: Predicted dBA* $= L + 3E - \left[4.19\, ln\left(\sqrt{1+H^2} + \sqrt{S^2+H^2}\right) + 7.0796\right] - \left[8.6879\, ln(1+S) - 2.5372\right]$ *where L = Sound Level (dB) of AC Unit, E = Equipment Location Factor (1 or 2), S = Setback (feet) of AC Unit, and H = Height (feet) of Block Wall.*

Cerritos Permit Hub

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PROPERTY OWNER'S CONSENT TO FILE PERMIT APPLICATION

Applicant Information

This section must be completed by the applicant or an authorized representative of the applicant/contractor.

Applicant Name(s) & Title(s): _____

Project Address: _____

Applicant Phone Number: _____

Applicant Email Address: _____

Project Description: _____

_____

☐ Check this box if the Project Applicant is also the Property Owner (Owner-Builder)

Property Owner Information and Approval

This section must be completed by the Property Owner.

Property Owner Name: _____

HOA Name (if applicable): _____

Project Address: _____

Property Owner Phone Number: _____

Property Owner Email Address: _____

Property Owner Acknowledgment

I certify, under penalty of making a false statement, that I am the property owner, or the property owner's representative authorized to sign this consent form to an application being filed with the City of Cerritos for the aforementioned project described at the aforementioned property address. I further acknowledge and agree to comply with all applicable provisions of the Cerritos Municipal Code.

Property Owner Signature: _____

Date: _____

The City will accept either an official digital signature or a scanned copy of a wet signature. Digital signatures must be timestamped through a digital signature platform, such as the "Fill & Sign" tool of the free Adobe Reader, DocuSign, or any other digital signature.

JOB ADDRESS
LOCALITY

COLUMN 1

OWNER-BUILDER DECLARATION

I hereby affirm under penalty of perjury that I am exempt from the Contractors' State License Law for the reason(s) indicated below by the checkmark(s) I have placed next to the applicable item(s) (Section 7031.5, Business and Professions Code): Any city or county that requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for the permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors' State License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he or she is exempt from licensure and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).)

(___) I, as owner of the property, or my employees with wages as their sole compensation, will do (__) all of or (__) portions of the work, and the structure is not intended or offered for sale (Section 7044, Business and Professions Code: The Contractors' State License Law does not apply to an owner of property who, through employees' or personal effort, builds or improves the property, provided that the improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the Owner-Builder will have the burden of proving that it was not built or improved for the purpose of sale.)

(__) I, as owner of the property, am exclusively contracting with licensed Contractors to construct the project (Section 7044, Business and Professions Code. The Contractor's State License Law does not apply to an owner of property who builds or improves thereon, and who contractors for the projects with a license Contractor pursuant to the Contractors' State License Law.).

(__) I am exempt from licensure under the Contractors' State License Law for the following reason:

_____

By my signature below I acknowledge that, except for my personal residence in which I must have resided for at least one year prior to completion of the improvements covered by this permit, I cannot legally sell a structure that I have built as an owner-builder if it has not been constructed in its entirety by licensed contractors. I understand that a copy of the applicable law, Section 7044 of the Business and Professions Code, is available upon request when this application is submitted or at the following Web site: http://www.leginfo.ca.gov/calaw.html.

Date: _____

_____

Signature of Property Owner of Authorized Agent

COLUMN 2

LICENSED CONTRACTOR'S DECLARATION

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

License Class _____ License No. _____

Date _____ Contractor Signature _____

WORKERS' COMPENSATION DECLARATION

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES ARE PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

I hereby affirm under penalty of perjury one of the following declarations:

___ I have and will maintain a certificate of consent to self-insure for workers' compensation, issued by the Director of Industrial Relations as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

Policy No. _____

___ I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

_____ _____ _____

Carrier Policy Number Expiration Date

_____ _____

Name of Agent Phone Number

___ I certify that, in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that, if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions

_____ _____

Signature of Applicant Date

COLUMN 3

HAZARDOUS MATERIAL DECLARATION

Will the applicant or future building occupant handle a hazardous material or a mixture containing a hazardous material equal to or greater than the amount specified on the hazardous material information guide?

Yes ☐ No ☐

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? See permitting checklist for guidelines.

Yes ☐ No ☐

I have read the hazardous materials information guide and the SCAQMD permitting checklist. I understand my requirements under the Los Angeles County Code Title 2, Chapter 220 Sections 220.100 through 220.140 concerning hazardous material reporting and for obtaining a permit from the SCAQMD.

ASBESTOS NOTIFICATION

☐ Notification letter sent to SCAQMD or EPA

☐ I declare that notification of asbestos removal is not applicable to addressed project.

DECLARATION REGARDING CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a Construction lending agency for the performance of the work for which this permit is issued (Section 3097, Civil Code)

_____

Lender's Name

_____

Lender's Address

By my signature below, I certify to each of the following:
I am the property owner or authorized to act on the property owner's behalf.
I have read this application and the information I have provided is correct.
I agree to comply with all applicable city and county ordinances and state laws relating to building construction.
I authorize representatives of this county to enter the above-identified property for inspection purposes.

_____

Signature of Property Owner or Authorized Agent

_____

Date

BUILDING & SAFETY
MECHANICAL SECTION
RESIDENTIAL A2L REFRIGERANT
PLAN CHECK DETERMINATION CHECKLIST

PROJECT INFORMATION

Complete all fields below.

Project Address: _____

Permit No.: _____

Contractor/Applicant: _____

HVAC Manufacturer Name and Model: _____

Refrigerant Type Proposed: _____

Refrigerant Quantity (lbs) (FACTORY CHARGE + ADDITIONAL CHARGE): _____

PLAN CHECK DETERMINATION

Mechanical Section plan check is required for new or replacement HVAC systems utilizing an A2L refrigerant unless the system meets one of Exceptions 1 through 3 below.

Table 1
per ASHRAE 15.2 Table 9-1

Refrigerant	Quantity (lbs)
R-32	4.0
R-452B	4.2
R-454A	3.7
R-454B	4.0
R-454C	4.0
R-457A	2.9
R-1234yf	3.8

Select the option below that applies to the project.

☐ Exception 1: The total refrigerant charge is less than or equal to the quantities listed in Table 1.

☐ Exception 2: The system is a ducted package unit serving an individual residence and is provided with a leak detection system installed per the manufacturer's installation instructions.

☐ Exception 3: The total refrigerant charge exceeds the quantity listed in Table 1, the outdoor unit serves only one indoor unit, the system is provided with a leak detection system installed per the manufacturer's installation instructions, and refrigerant piping penetrates no more than one floor/ceiling assembly.

☐ All other systems. None of the above exceptions apply – Mechanical Section plan check is required.

APPLICANT CERTIFICATION

I certify that the information provided in this checklist is true and correct. I understand that inaccurate or incomplete information may result in additional plan review requirements or permit corrections.

Applicant Name: _____

Signature: _____

Date: _____

REQUIRED DOCUMENTATION FOR PLAN CHECK

Mechanical Section plan check is NOT required

Upload the following documentation to the permit application:

- Provide completed form with permit application.
- Manufacturer's product specifications identifying:
  - The refrigerant type
  - Charge quantity
  - Leak detection system

Mechanical Section plan check IS required

Create a complex mechanical permit application and upload complete mechanical plans.

- Provide completed form with permit application.

The following should be provided on the mechanical plans for review:

- Manufacturer’s equipment schedule
- Refrigerant type
- Charge quantity
- Refrigerant piping plans for split systems
- Calculations for the smallest space served by each fan coil or packaged system using equation m_{max}= C X M per ASHRAE 15.2:9.5.

37MGHA

Multi-Zone Heat Pump Outdoor Unit Ductless System
Sizes 18K to 55K

Carrier

Product Data



Fig. 1 – Single Fan (Sizes 18K – 36K)



Fig. 2 – Dual Fan (Sizes 48K – 55K)

NOTE: Images are for illustration purposes only. Actual models may differ slightly.

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EXAMPLE

Table 4 – Comprehensive Specifications (Continued)

Outdoor model				SIZE 18K	SIZE 24K	SIZE 30K	SIZE 36K	SIZE 48K	SIZE 55K
Piping and Refrigerant Information	Refrigerant Type		Type	R454B	R454B	R454B	R454B	R454B	R454B
	Charge Amount		lb. (kg)	4.89(2.22)	7.54(3.42)	8.38(3.8)	8.38(3.8)	9.48(4.3)	9.48(4.3)
	Liquid Pipe (size - connection type)		In (mm)	3x1/4in(3x6.35mm)	4x1/4in(4x6.35mm)	5x1/4in(5x6.35mm)	5x1/4in(5x6.35mm)	6x1/4in(5x6.35mm)	6x1/4in(5x6.35mm)
	Suction Pipe (size - connection type)		In (mm)	3x3/8in(3x9.52mm)	3x3/8in+1x1/2in(3x9.52 mm+1x12.7mm)	3x3/8in+2x1/2in(3x9.52mm+2x12.7mm)		4x3/8in+2x1/2in(4x9.52mm+2x12.7mm)	
	Min. Piping Length per each indoor unit		ft. (m)	10 (3)					
	Standard Piping Length per each indoor unit		ft. (m)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)
	Max. outdoor-indoor height difference (OU higher than IU)		ft. (m)	49.21(15)	49.21(15)	49.21(15)	49.21(15)	49.21(15)	49.21(15)
	Max. outdoor-indoor height difference (IU higher than OU)		ft. (m)	49.21(15)	49.21(15)	49.21(15)	49.21(15)	49.21(15)	49.21(15)
	Max. Piping Length with no additional refrigerant charge per System (Standard Piping length x No. of Zones)		ft. (m)	73.8 (22.5)	98.4(30)	123(37.5)	123(37.5)	147.6(45)	147.6(45)
	Additional refrigerant charge (between Standard – Max piping length)		Oz/ft (g/m)	0.16(15)	0.16(15)	0.16(15)	0.16(15)	0.16(15)	0.16(15)
	Max. Length per each indoor unit		ft. (m)	98.4(30)	114.8(35)	114.8(35)	114.8(35)	114.8(35)	114.8(35)
	Total Maximum Piping Length per system		ft. (m)	196.9(60)	262.5(80)	262.5(80)	262.5(80)	328(100)	328(100)
	Number of IDU		ft. (m)	3	4	5	5	6	6
AIRFLOW SPECIFICATIONS		Outdoor (CFM)	CFM	2130.7	2148.3	3037.1	3037.1	4502.6	4502.6
SOUND DATA	Outdoor Sound Pressure Level		dB(A)	61.5	61	65	65	65	65
ENVIRON-MENTAL SPECIFICATIONS	Cooling Operating Range	Indoor Min - Max DB	°F	60~90	60~90	60~90	60~90	60~90	60~90
			(°C)	(16-32)	(16-32)	(16-32)	(16-32)	(16-32)	(16-32)
		Indoor Min - Max WB	°F	59-84	59-84	59-84	59-84	59-84	59-84
			(°C)	(15-29)	(15-29)	(15-29)	(15-29)	(15-29)	(15-29)
		Outdoor Min - Max DB	°F	-22~122	-22~122	-22~122	-22~122	-22~122	-22~122
			(°C)	(-30~50)	(-30~50)	(-30~50)	(-30~50)	(-30~50)	(-30~50)
	Heating Operating Range	Indoor Min - Max DB	°F	32~86	32~86	32~86	32~86	32~86	32~86
			(°C)	(0-30)	(0-30)	(0-30)	(0-30)	(0-30)	(0-30)
		Outdoor Min - Max DB	°F	-22~75	-22~75	-22~75	-22~75	-22~75	-22~75
			(°C)	(-30~24)	(-30~24)	(-30~24)	(-30~24)	(-30~24)	(-30~24)
	Non-operating environment Storage	Temperature range (DB)	°F	-49-140	-49-140	-49-140	-49-140	-49-140	-49-140
			(°C)	(-45-60)	(-45-60)	(-45-60)	(-45-60)	(-45-60)	(-45-60)
	Operation Humidity		%	0-80%	0-80%	0-80%	0-80%	0-80%	0-80%
	Ambient Humidity		%	0-80%	0-80%	0-80%	0-80%	0-80%	0-80%

EXAMPLE

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

615AHAQ

High Wall Ductless System
Sizes 06 to 36

bryant

Product Data



Fig. 1 – Sizes 06K - 36K



Fig. 2 – Remote Control

NOTE: Images are for illustration purposes only. Actual models may differ slightly.

EXAMPLE

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INDUSTRY LEADING FEATURES / BENEFITS

A PERFECT BALANCE BETWEEN BUDGET LIMITS, ENERGY SAVINGS AND COMFORT.

The **615AHAQ** series ductless systems are a matched combination of an outdoor condensing unit and an indoor fan coil unit connected only by refrigerant tubing and wires.

The fan coil is mounted on the wall, near the ceiling. This selection of fan coils permits creative solutions to design problems such as:

- Add-ons to current space (an office or family room addition)
- Special space requirements
- When changes in the load cannot be handled by the existing system
- When adding air conditioning to spaces that are heated by hydronic or electric heat and have no ductwork
- Historical renovations or any application where preserving the look of the original structure is essential.

The ideal compliment to your ducted system when it is impractical or prohibitively expensive to use ductwork. These compact indoor fan coil units take up very little space in the room and do not obstruct windows. The fan coils are attractively styled to blend with most room decors.

Advanced system components incorporate innovative technology to provide reliable cooling performance at low sound levels.

LOW SOUND LEVELS

When noise is a concern, the ductless systems are the answer. The indoor units are whisper quiet. There are no compressors indoors, either in the conditioned space or directly over it, and there is none of the noise usually generated by air being forced through ductwork.

SECURE OPERATION

If security is an issue, outdoor and indoor units are connected only by refrigerant piping and wiring to prevent intruders from crawling through ductwork. In addition, since the outdoor units can be installed close to an outside wall, coils are protected from vandals and severe weather.

FAST INSTALLATION

This compact ductless system is simple to install. A mounting bracket is standard with the indoor units and only wire and piping need to be run between the indoor and outdoor units. These units are fast and easy to install ensuring minimal disruption to customers in the home or workplace. This makes the 615AHAQ ductless systems the equipment of choice, especially in retrofit situations.

GUIDE SPECIFICATIONS
INDOOR WALL-MOUNTED DUCTLESS UNITS

Size Range: 1/2 to 3 Ton Nominal Cooling and Heating Capacity

Model Number: **615AHAQ**

Part 1 - GENERAL

1.01 System Description

Indoor, wall-mounted, direct-expansion fan coils are matched with the heat pump outdoor unit.

1.02 Agency Listings

Unit are rated per AHRI Standards 210/240 and listed in the AHRI directory as a matched system.

1.03 Delivery, Storage, And Handling

Store and handle the unit per the unit manufacturer's recommendations.

1.04 Warranty (For Inclusion By Specifying Engineer)

Part 2 - PRODUCTS

2.01 Equipment

A. General: Indoor, direct-expansion, wall-mounted fan coil

Unit is complete with a cooling/heating coil, fan, fan motor, piping connectors, electrical controls, microprocessor control system, and integral temperature sensing. Unit is furnished with an integral wall mounting bracket and mounting hardware.

B. **Unit Cabinet:**

Cabinet discharge and inlet grilles are attractively styled, high-impact polystyrene. Cabinet is fully insulated for improved thermal and acoustic performance.

C. **Fans**:

1. Fan is the tangential direct-drive blower type with air intake at the top of the unit and discharge at the bottom front. An automatic, motor-driven vertical air sweep is provided as standard equipment.
2. The air sweep operation is user selectable. The vertical sweep may be adjusted (using the remote control). The horizontal air direction may be set manually.

D. **Coil**:

The coil is a copper tube with aluminum fins and galvanized steel tube sheets. The fins are bonded to the tubes by mechanical expansion and anti-corrosive fin coating. A drip pan under the coil has a drain connection for the hose attachment to remove condensate. The condensate pan has an internal trap.

E. **Motors**:

Motors are open drip-proof, with a permanently lubricated ball bearing. The fan motors is 4-speed.

F. **Controls**:

Controls consist of a microprocessor-based control system which controls space temperature, determine optimum fan speed, and run self diagnostics. The temperature control range is from 62°F to 86°F (17°C to 30°C) in increments of 1°F or 1°C, and have 46°F Heating Mode (Heating Setback). The wireless remote controller has the ability to act as the temperature sensing location for room comfort.

The unit has the following functions as a minimum:

1. An automatic restart after a power failure at the same operating conditions as at the failure.
2. A timer function to provide a minimum 24-hour timer cycle for system Auto Start/Stop.
3. Temperature-sensing controls sense return air temperature.
4. Indoor coil freeze protection.
5. Wireless infrared remote control to enter set points and operating conditions.
6. Automatic air sweep control to provide on or off activation of air sweep louvers.
7. Dehumidification mode provides increased latent removal capability by modulating the system operation and the set point temperature.
8. Fan-only operation to provide room air circulation when no cooling is required.
9. Diagnostics provide continuous checks of unit operation and warn of possible malfunctions. Error messages appear on the unit.
10. Fan speed control is user-selectable: turbo, high, medium, low, or microprocessor controlled automatic operation during all operating modes.
11. Automatic heating-to-cooling changeover in the heat pump mode. Control includes deadband to prevent rapid mode cycling between heating and cooling.
12. Indoor coil high temperature protection detects excessive indoor discharge temperature when the unit is in the heat pump mode.

G. Filters:

Unit have a filter track with factory-supplied cleanable filters.

H. Electrical Requirements:

Indoor fan motor to operate on 115V on model size 12 and on 208-230V on model sizes 06-36, as specified. Power is supplied by the outdoor unit..

I. Operating Characteristics:

The **615AHAQ** system has a minimum SEER2 (Seasonal Energy Efficiency Ratio) and HSPF at AHRI conditions, as listed on the specifications table.

J. Refrigerant Lines:

All units have refrigerant lines that can be oriented to connect from the left, right or back of unit. Both refrigerant lines need to be insulated.

K. Special Features (Field Installed):

Condensate Pump:

The condensate pump removes condensate from the drain pan when gravity drainage cannot be used. The pump is designed for quiet operation. The pump consists of two parts: an internal reservoir/sensor assembly, and a remote sound-shielded pump assembly. A liquid level sensor in the reservoir stops the cooling operation if the liquid level in the reservoir is unacceptable.

L. Leak Mitigation

The unit is equipped with a refrigerant leak detection sensor.

EXAMPLE

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Catalog No: PDS615AHAQ-01
A Proud Member of the Carrier Family
Replaces: New

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
BUILDING & SAFETY DIVISION

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-3182
www.ladpw.org

ENERGY, MECHANICAL AND PLUMBING CODES CHECKLIST

The following list shall be checked/marked by the applicant in order to determine whether a plan check is required for energy, mechanical code and/or plumbing code by the Mechanical Section.

It is the responsibility of the applicant, engineer, architect, and/or contractor to mark the appropriate items below:

Property Address:
Property Title:
Applicant Name:
Applicant Phone Number:

I. Plumbing Code

1. The following plumbing systems require complete plumbing code plan check:

- Any new potable water service or new water branch of 2" or larger.
- Any new gas service or new gas branch of 2" or larger.
- New drainage system with more than 216 fixture units.
- Any multi-building development on a single lot where the total drainage fixture load exceeds 216 drainage fixture units on a common private sewer.

2. The following individual plumbing systems shall be reviewed independently:

- Any medium or high-pressure gas system.
- Any seismic gas shut off valve not listed by the Mechanical Section (See attached list.)
- Any combination waste and vent system.
- Roof drainage system within the building with a roof area greater than 6,000 Sq ft.
- Chemical waste system.
- Plumbing installation in a State licensed health care facility (e.g.: Dialysis Center Clinics.)

- Gray water or Rainwater Catchment Systems per Chapter 15, 16 or 16A.
- Solar hot water heating systems.
- Running a sewer lateral through an abutting lot.

II. Mechanical Code

1. The following mechanical systems require complete mechanical Code plan check:

   - New or replaced systems with aggregate comfort heating or comfort cooling input capacity of greater than 500,000 BTU/hr.
   - New or replaced systems using Group A2L refrigerants for comfort cooling in non-residential buildings.
   - New or replaced systems using Group A2L refrigerants for comfort cooling in residential buildings as determined by the Residential A2L Determination Plan Check List.

2. The following individual mechanical systems shall be reviewed independently:

   - Ventilation for automobile parking and repair garages.
   - Stairway pressurization systems.
   - Smoke control systems.
   - Food processing establishments with Type I or II hood(s).
   - Product conveying systems (e.g.: dust collection system, fume hoods, etc.)
   - Ventilation for a State licensed health care facility (e.g.: Dialysis Center Clinics.)
   - Refrigeration systems requiring a refrigeration machinery room (e.g.: aggregate combined compressor horsepower of 100 or other than Group A1 refrigeration, etc.)

III. Energy Standards

The following conditions require energy plan review.

- All newly conditioned buildings and conditioned additions.
- All new tenant improvements (addition or alteration of heating and/or cooling systems to existing conditioned space or to buildings in which the envelope was previously approved for compliance with Energy Standards).
- All alterations to the building envelope between conditioned and unconditioned spaces.
- All newly installed or altered ductwork.
- Shell buildings constructed with envelope insulation for future conditioned space.

  For ductwork only projects with total conditioned area less than 1,000 Sq ft, and occupant load less than 49, applicant may choose to submit the plans for plan review or file an Attachment-4.

ATTACHMENT

Please be advised that:

1. A plumbing permit must be obtained by a contractor licensed in the appropriate classification, or qualified installer for all the above-mentioned cases.

2. Plan review is required for:

    a. All low pressure gas systems with SGSOV sizes smaller than the size of gas pipe immediately downstream of the by-pass “T”.
    b. All low pressure gas systems 2” or larger:
    Exception: When VAGV-200 SGSOV is installed on an existing 2” or smaller gas system with no other change to the system.
    c. All medium pressure gas systems equipped with a SGSOV.

Although it is not mandatory in the unincorporated areas of the County and the contract cities to install seismic gas shut off valves (SGSOV), it has become commonplace for applicants to install them in new and existing buildings.

Since SGSOV's restrict gas flow, it adds to the losses within the gas pipe system. Thus, the loss shall be considered when sizing the gas piping system. In sizing gas systems, pressure loss through the SGSOV shall be converted into equivalent length of straight pipe and added to the developed length of the actual gas pipe system. Pipes shall be sized based on this new equivalent length.

Following tables provide equivalent length for some of the listed SGSOV's.

Table of Equivalent Lengths for Gas Systems

Table 1: “CALIFORNIA, AKA: KOSO, or PACIFIC SEISMIC PRODUCTS” Earthquake Activated Gas Shut-Off Valves

Model	Size (in.)	Equivalent Length (ft.) of pipe (same nominal size as a SGSOV)	Max. Pressure (psi)
300	3/4	3	7
301	1	3	7
302	1-1/4	4	7
303	1-1/2	5	7
310	3/4	3	60
311	1	3	60
312	1-1/4	4	60
313	1-1/2	5	60
314	2	5	60
314F	2	5	60
318	21/2	8	60
318F	2-1-2	8	60
315	6	10	60
315F	3	10	60
316	4	13	60
316F	4	13	60
317F	6	13	60
319F	8	9	60

Table 2: “LITTLE FIREFIGHTER” Earthquake Activated Gas Shut-Off Valves

Model	Size (in.)	Equivalent Length (ft.) of pipe (same nominal size as a SGSOV)	Max Pressure (psi.)
AGV-075	3/4	4	5
AGV-100	1	3	5
AGV-125	1-1/4	5	5
AGV-150	1-1/2	5	5
AGV-200	2	15	5
AGV-200HP	2	15	60
VAGV-075	3/4	3	10
VAGV-100	1	10	10
VAGV-125	1-1/4	75	10
VAGV-125HF	1-1/4	4	2
VAGV-150	1-1/2	6	2
VAGV-200	2	40	2
NAGV-075	3/4	3	10

NAGV-100	1	9	10
NAGV-125	1-1/4	16	10
AGV-250	2-1/2	4	60
AGV-300	3	5	60
AGV-400	4	12	60

Table 3: “FAY” Earthquake Activated Gas Shut-Off Valves

Model	Size (in.)	Equivalent Length (ft.) of pipe (same nominal size as a SGSOV)	Operating Pressure (psi)
FM-20	3/4	1.9	7
FM-S200	3/4	5.6	7
FM-S201	3/4	5.6	7
FM-25	1	4.2	7
FM-S250	1	22.5	7
FM-S251	1	22.5	7
FM-252	1	4.2	60
FM-253	1	4.2	60
FM-32	1-1/4	13.3	7
FM 321	1-1/4	13.3	60
FM 322	1-1/4	13.3	60
FM 323	1-1/4	13.3	60
FM-40	1-1/2	12.8	7
FM-401	1-1/2	12.8	7
FM-402	1-1/2	12.8	60
FM-403	1-1/2	12.8	60
FM-50	2	42.4	7
FM 501	2	42.4	7
FM-502	2	42.4	60
FM-503	2	42.4	60

All projects with gas pipe size 2 inch or larger and projects with medium or high pressure (any gas pipe size) using SGSOV's shall be submitted to Mechanical Section for plan review. Additionally, projects with proposed SGSOV's smaller than the gas line size shall also be submitted to the section.

All low-pressure gas system smaller than 2 inch with line size SGSOV shall be reviewed at District Office by the inspector using equivalent length method as described previously.

Cerritos Permit Hub

City of Cerritos
Department of Community Development
18125 Bloomfield Avenue Cerritos, CA 90703
Phone: (562) 916-1201
Website: permits.cerritos.gov

HOA APPROVAL FORM

For all properties located within a homeowners' association (HOA), written HOA approval is required prior to obtaining plan approval and/or building permits from the City of Cerritos. This form must be completed and submitted together with the required planning/permit application for all exterior work. Although separate HOA approval letters and/or signature stamps may be submitted as supplemental information, a completed copy of this form is still required.

Property Information

This section must be completed by the applicant or an authorized representative of the applicant/contractor.

Property Owner Name(s): _____

Phone Number: _____

Property Address: _____

What type of exterior work is being performed? Check all that apply.

- ☐ Air Conditioning
- ☐ Exterior Painting
- ☐ Exterior remodel (change in materials or architectural style; no added square footage)
- ☐ Front yard or driveway improvements
- ☐ New/replacement residence
- ☐ Re-roof
- ☐ Room addition
- ☐ Solar energy system
- ☐ Windows
- ☐ Other: _____

Property Owner Signature: _____

Date: _____

The City will accept either an official digital signature or a scanned copy of a wet signature. Digital signatures must be timestamped through a digital signature platform, such as the "Fill & Sign" tool of the free Adobe Reader, DocuSign, or any other digital signature.

City of Cerritos
Department of Community Development
18125 Bloomfield Avenue Cerritos, CA 90703
Phone: (562) 916-1201
Website: permits.cerritos.gov

HOA Information & Approval

This section must be completed by an authorized HOA Representative.

HOA Name: _____

Check one: HOA approval...

☐ IS required for one or more of the items checked in the section above. Complete all items below.

What is the highest level of review and approval required by your HOA for the proposed work? Check one:

- ☐ Board of Directors
- ☐ Property Manager
- ☐ Architectural/Design Review Committee
- ☐ Other: _____

HOA approval noted above was granted on _____.

HOA conditions of approval were:

- ☐ Imposed on the project and are attached to this form.
- ☐ Not imposed on the project.

Said approval is for plans with the following date or revision number: _____.

Check one: If plan modifications are required by the City, then the plans...

- ☐ DO require further review and approval by the HOA (requires new HOA approval form).
- ☐ DO NOT require further review and approval by the HOA.

☐ IS NOT required for any of the items checked in the section above.

Authorized HOA Signature: _____

Printed Name: _____

Title: _____

Date: _____

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GREEN CERRITOS RESIDENTIAL BUILDING PERMIT FEE WAIVER APPLICATION

Building permit fee waivers associated with the installation of green building activities mentioned below may be provided for existing residential homes, up to a maximum of $1,000.00. Remaining building permit and plan check fees after the Green Cerritos Fee Waivers have been applied are the responsibility of the applicant. Please note that window upgrades or improvements do not qualify for Green Cerritos fee waiver incentives.

Contact Information

This section must be completed by the applicant or an authorized representative of the applicant/contractor.

Property Owner Name(s): _____

Property Owner Phone Number: _____

Property Address of Job Site: _____

Name(s) of Contractor(s): _____

Contractor Address: _____

Contractor Phone Number: _____

Contractor State License Number: _____

Green Building Information

What type of green building activity is being performed? Check all that apply.

- ☐ Installation of an ENERGY STAR air conditioner
- ☐ Split System (Must have a SEER rating ≥ 16 to be eligible)
- ☐ Package System (Must have a SEER rating ≥ 14 to be eligible)
- ☐ Installation of an ENERGY STAR water heater
- ☐ ENERGY STAR certified tankless water heater with an Energy Factor (EF) ≥ 0.87
- ☐ ENERGY STAR certified natural gas water heater with an Energy Factor (EF) ≥ 0.64
- ☐ Installation of an electric vehicle charging station
- ☐ Other:

_____

Property Owner Signature: _____

Date: _____

Contractor Signature: _____

Date: _____

The City will accept either an official digital signature or a scanned copy of a wet signature. Digital signatures must be timestamped through a digital signature platform, such as the "Fill & Sign" tool of the free Adobe Reader, DocuSign, or any other digital signature.