ORDINANCE NO. 1393

AN ORDINANCE ADDING § 13-1-4 TO THE EL SEGUNDO MUNICIPAL CODE AND AMENDING THE 2001 CALIFORNIA BUILDING CODE ("CBC") BASED UPON LOCAL CLIMATIC, TOPOGRAPHIC, AND GEOGRAPHICAL CONDITIONS.

The council of the city of El Segundo does ordain as follows

SECTION 1 **FINDINGS** The City Council finds and declares as follows

A In accordance with Health and Safety Code § 17958 7, the City Council incorporated the 2001 Edition of the California Building Code ("CBC"), along with certain amendments, into the El Segundo Municipal Code ("ESMC") by Ordinance No 1349, adopted October 15, 2002

B Pursuant to the requirements of Health and Safety Code § 17958 7, the City Council finds that there are local geographical conditions justifying the CBC amendments set forth below Specifically, the City abuts the Los Angeles International Airport ("LAX"), one of the largest international airports in the world Consequently, the City and its citizens are profoundly affected by noise generated from air traffic using LAX Amending the ESMC and CBC through the additions in this Ordinance will help reduce the noise impact from air traffic and help improve public health, safety, and welfare including, without limitation, quality of life and property value

C Based upon the foregoing findings, the changes made to the CBC by this Ordinance are reasonably necessary to provide sufficient and effective protection of life, health and property

SECTION 2 A new section 13-1-4 is added to the El Segundo Municipal Code ("ESMC") to read as follows

"13-1-4 **Residential Noise Insulation Standards; Further Amendments to the Code**

CBC Appendix § 1208A 8 3 is added to read as follows

Airport Noise Sources

1208A 8 3 01 Noise Insulation Requirements for New Construction

1208A 8 3 02 Purpose and Scope

The purpose of this section is to establish minimum noise insulation performance standards for new residential dwelling units and additions of habitable rooms to

existing residential dwelling units to protect public health, safety, and welfare from the effects of excessive noise, including without limitation, indoor quality of life, speech interference, and sleep disruption

1208A 8 3 03 Applicability This section applies to all newly constructed residences and habitable room additions to existing residences

1208A 8 3 04 Definitions For purposes of this section, the following words must have the following meaning

"Community Noise Equivalent Level (CNEL)" means the noise measure defined in 21 Code of California Regulations § 5001(d), and any successor regulation or amendment

"Habitable Room" means a room that is a space in a structure for living, sleeping, eating, or cooking Bathrooms, toilet compartments, closets, halls, storage or utility space, garages, and similar areas are not considered habitable space

"LAX" means Los Angeles International Airport

"Noise Impact Boundary for LAX" means the area around LAX as defined in 21 California Code of Regulations § 5001(l), and any successor regulation or amendment The City's Building Safety Department must at all times maintain a current map of the Noise Impact Boundary

"Residence" means any Occupancy Group R building as used in El Segundo Title 15 of the El Segundo Municipal Code

1208A 8 3 05 Standards: Any new Residence or addition of one or more habitable rooms to an existing Residence that is within the Noise Impact Boundary for LAX must be designed to ensure that internal noise levels due to LAX do not exceed of 45 dB CNEL This standard may be satisfied in two ways (1) by performing the acoustical analysis described in section E, below, or (2) by employing the prescribed construction methods described in section F, below

1208A 8 3 06 Acoustical Analysis A building permit application for a new Residence or addition of one or more habitable rooms to an existing Residence must comply with the minimum noise insulation performance standards established in this section if it includes an acoustical analysis demonstrating that the proposed design will ensure that internal noise levels due to LAX aircraft noise will not exceed 45 dB CNEL The acoustical analysis is subject to verification by the Building Official, who has the discretion to require post-construction/pre-occupancy acoustic measurement to verify compliance with the 45 dB CNEL standard

A The acoustical analysis must be prepared by or under the supervision of a person experienced in the field of acoustical engineering The analysis must consider and include the topographical relationship between LAX aircraft noise sources and the

dwelling site, the characteristics of those noise sources, predicted noise spectra and levels at the exterior of the dwelling site, the basis for this prediction (measured or obtained from published data), the noise insulation measures to be employed, and the effectiveness of the proposed noise insulation measures

B If the interior allowable noise levels are to be met by requiring that windows be unopenable or closed, the design for the structure must also specify a ventilation or air-conditioning system to provide a habitable interior environment The ventilation system must not compromise the interior room noise reduction

1208A 8 3 07 Prescribed Construction Methods A building permit application for a new Residence or addition of one or more habitable rooms to an existing Residence must comply with the minimum noise insulation performance standards establish in this section if the design incorporates the following construction methods

CONSTRUCTION METHODS IN THE 70 DB CNEL AND GREATER NOISE ZONE

1208A 8 3 08 Exterior Walls New walls that form the exterior portion of habitable rooms must be constructed as follows

A Studs must be at least 4 inches in nominal depth

B Exterior finish must be stucco, minimum 7/8-inch thickness, brick veneer, masonry, or any siding material allowed by this code Wood or metal siding must be installed over ½-inch minimum solid sheathing

C Masonry walls with a surface weight of less than 40 pounds per square foot must require an interior supporting studwall that is finished with at least 5/8-inch thick gypsum wall board or plaster

D Wall insulation must be at least R-11 glass fiber or mineral wool and must be installed continuously throughout the stud space

E Exterior solid sheathing must be covered with overlapping asphalt felt

F Interior wall finish must be at least 5/8-inch thick gypsum wall board or plaster

1208A 8 3 09 Exterior Windows

A Openable Windows All openable windows in the exterior walls of habitable rooms must have a laboratory sound transmission class rating of at least STC 40 dB and must have an air infiltration rate of no more than 0 5 cubic feet per minute when tested according to ASTM E-283

B Fixed Windows All fixed windows in the exterior walls of habitable rooms must

1 Have a sound transmission class rating of at least STC 40 dB, or

2 Must be 5/8 inch laminated glass with STC rating of 40 dB and must be set in non-hardening glazing materials, or

3 Must be glass block at least 3-1/2 inches thick

C The total areas of glazing in rooms used for sleeping must not exceed 20% of the wall area

1208A.8.3.10 Exterior Doors

A Exterior hinged doors to habitable rooms that are directly exposed to aircraft noise and are facing the source of the noise must be a door and edge seal assembly that has a laboratory sound transmission class of at least STC 40 dB

B Exterior hinged doors to habitable rooms that are not directly exposed to aircraft noise and do not face the source of the noise must have a minimum STC rating of 35 dB

C Sliding glass doors in habitable rooms must not be allowed in walls that are directly exposed to aircraft noise Sliding glass doors in walls that are not directly exposed must have an STC rating of at least 40 dB

D Access doors from attached garage to the interior of a residence must have an STC rating of at least 30 dB

1208A 8 3 11 Roof/Ceiling Construction

A Roof rafters must have a minimum slope of 4.12 and must be covered on their top surface with minimum ½-inch solid sheathing and any roof covering allowed by this code

B Attic insulation must be batt or blow-in glass fiber or mineral wool with a minimum R-30 rating applied between the ceiling joists

C. Attic ventilation must be

1 Gable vents or vents that penetrate the roof surface that are fitted with transfer ducts at least 6 feet in length that are insulating flexible ducting or metal

ducts containing internal 1-inch thick coated fiberglass sound absorbing duct liner Each duct must have a lined 90-degree bend in the duct so that there is no direct line of sight from the exterior through the duct into the attic, or

2 Noise control louver vents, or

3 Eave vents that are located under the eave overhang

4 Ceilings must be finished with gypsum board or plaster that is at least 5/8-inch thick Ceiling materials must be mounted on resilient channels

5 Skylights must penetrate the ceiling by means of a completely enclosed light well that extends from the roof opening to the ceiling opening. A secondary openable glazing panel must be mounted at the ceiling line or at any point that provides at least a 4-inch space between the skylight glazing and the secondary glazing and must be glazed with at least 3/16-inch plastic or laminated glass The weather-side skylight must be any type that is permitted by the Building Code The size of skylights must be no more than 20 percent of the roof area of the room

1208A 8 3 12 Ventilation

A A ventilation system must be provided that will provide at least the minimum air circulation and fresh air supply requirements of this code in each habitable room without opening any window, door or other opening to the exterior All concealed ductwork must be insulated flexible glass fiber ducting that is at least 10 feet long between any two points of connection

B Kitchen cooktop vent hoods must be the non-ducted recirculating type with no ducted connection to the exterior

1208A 8 3.13 Fireplaces Each fireplace must be fitted with a damper at the top of the chimney that is operated from the firebox and must have glass doors across the front of the firebox

1208A 8 3 14 Wall and Ceiling Openings Openings in the shell of the Residence that degrade its ability to achieve an interior CNEL rating of 45 dB or less when all doors and windows are closed are prohibited unless access panels, pet doors, mail delivery drops, air-conditioning, or other openings are designed to maintain the 45 dB CNEL (or less) standard in the room to which they provide access

CONSTRUCTION METHODS IN THE 65 DB CNEL TO 70 DB CNEL NOISE ZONE

1208A 8 3 15 Exterior Walls· New walls that form the exterior portion of habitable rooms must be constructed as follows

A Studs must be at least 4 inches in nominal depth

B Exterior finish must be stucco, minimum 7/8-inch thickness, brick veneer, masonry, or any siding material allowed by this code Wood or metal siding must be installed over ½-inch solid sheathing

C Masonry walls with a surface weight of less than 40 pounds per square foot will require an interior studwall that is finished with at least 5/8-inch thick gypsum wallboard or plaster

D Wall insulation must be at least R-11 glass fiber or mineral wool and must be installed continuously throughout the stud space

E Exterior solid sheathing must be covered with overlapping asphalt felt

F Interior wall finish must be at least 5/8-inch thick gypsum wallboard or plaster

1208A 8 3 16 Exterior Windows

A Openable Windows All openable windows in the exterior walls of habitable rooms must have a laboratory sound transmission class rating of at least STC 35 dB and must have an air infiltration rate of no more than 0 5 cubic feet per minute when tested according to ASTM E-283

B Fixed Windows All fixed windows in the exterior walls of habitable rooms must be at least 1/4-inch thick and must be set in non-hardening glazing materials

C The total area of glazing in rooms used for sleeping must not exceed 20% of the floor area

1208A 8 3 17 Exterior Doors

A Exterior hinged doors to habitable rooms that are directly exposed to aircraft noise and are facing the source of the noise must be a door and edge seal assembly that has a laboratory sound transmission class of at least STC 35 dB

B Exterior hinged doors to habitable rooms that are not directly exposed to aircraft noise and do not face the source of the noise must have a minimum STC rating of 30 dB

C Sliding glass doors in habitable rooms must have glass that is 1/4-inch thick

D Access doors from a garage to a habitable room must have an STC rating of at least 30 dB

1208A 8 3 18 Roof/Ceiling Construction

A Roof rafters must have a minimum slope of 4 12 and must be covered on their top surface with minimum ½-inch solid sheathing and any roof covering allowed by this code

B Attic insulation must be batt or blow-in glass fiber or mineral wool with a minimum R-30 rating applied between the ceiling joists

C Attic ventilation must be

1 Gable vents or vents that penetrate the roof surface that are fitted with transfer ducts at least 6 feet in length that are insulating flexible ducting or metal ducts containing internal 1-inch thick coated fiberglass sound absorbing duct liner Each duct must have a lined 90-degree bend in the duct so that there is no direct line of sight from the exterior through the duct into the attic, or

2 Noise control louver vents, or

3 Eave vents that are located under the eave overhang

D Ceilings must be finished with gypsum board or plaster that is at least 5/8-inch thick

E Skylights must penetrate the ceiling by means of a completely enclosed light well that extends from the roof opening to the ceiling opening A secondary openable glazing panel must be mounted at the ceiling line and must be glazed with at least 3/16-inch plastic, tempered or laminated glass The weather-side skylight must be any type that is permitted by the Building Code

1208A 8 3 19 Floors The floor of the lowest habitable rooms must be concrete slab on grade or wood framed floors

1208A 8 3 20 Ventilation

A A ventilation system must be provided that will provide at least the minimum air circulation and fresh air supply requirements of this code in each habitable room without opening any window, door or other opening to the exterior All concealed ductwork must be insulated flexible glass fiber ducting that is at least 10 feet long between any two points of connection

B Kitchen cooktop vent hoods must be the non-ducted recirculating type with no ducted connection to the exterior

1208A 8 3 21 Fireplaces Each fireplace must be fitted with a damper at the top of the chimney that is operated from the firebox and must have glass doors across the front of the firebox

1208A 8 3.22 Wall and Ceiling Openings Openings in the shell of the Residence that degrade its ability to achieve an interior CNEL rating of 45 dB or less when all doors and windows are closed are prohibited Any access panels, pet doors, mail delivery drops, air-conditioning, or other openings must be designed to maintain the 45 dB CNEL or less standard in the room to which they provide access "

SECTION 3 CALIFORNIA ENVIRONMENTAL QUALITY ACT EXEMPTION The City Council determines that this ordinance is exempt from review under the California Environmental Quality Act (California Public Resources Code §§ 21000, et seq , "CEQA") and the regulations promulgated thereunder (14 California Code of Regulations §§ 15000, et seq , the "State CEQA Guidelines") because it consists only of minor revisions and clarifications to an existing code of construction-related regulations and specification of procedures related thereto and will not have the effect of deleting or substantially changing any regulatory standards or findings required therefor This ordinance, therefore, is an action being taken for enhanced protection of the environment and that does not have the potential to cause significant effects on the environment

SECTION 4 SAVINGS CLAUSE Repeal of any provision of the ESMC or any other city ordinance herein will not affect any penalty, forfeiture, or liability incurred before, or preclude prosecution and imposition of penalties for any violation occurring before, this Ordinance's effective date Any such repealed part will remain in full force and effect for sustaining action or prosecuting violations occurring before the effective date of this Ordinance

SECTION 5 SEVERABILITY If any part of this Ordinance or its application is deemed invalid by a court of competent jurisdiction, the city council intends that such invalidity will not affect the effectiveness of the remaining provisions or applications and, to this end, the provisions of this Ordinance are severable

SECTION 6 VALIDITY OF PREVIOUS CODE SECTIONS If this the entire Ordinance or its application is deemed invalid by a court of competent jurisdiction, any repeal of the ESMC or other the city ordinance by this Ordinance will be rendered void and cause such ESMC provision or other the city ordinance to remain in full force and effect for all purposes

SECTION 7 EFFECTIVE DATE. This Ordinance will take effect on the 31st day following its final passage and adoption

PASSED AND ADOPTED this 6th day of April, 2006

Kelly McDowell,
Mayor

ATTEST

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS
CITY OF EL SEGUNDO)

I, Cindy Mortesen, City Clerk of the City of El Segundo, California, do hereby certify that the whole number of members of the City Council of said City is five, that the foregoing Ordinance No 1393 was duly introduced by said City Council at a regular meeting held on the 21st day of March, 2006, and was duly passed and adopted by said City Council, approved and signed by the Mayor, and attested to by the City Clerk, all at a regular meeting of said Council held on the 6th day of April, 2006, and the same was so passed and adopted by the following vote

AYES McDowell, Boulgarides, Busch, Jacobson

NOES None

ABSENT Gaines

ABSTAIN None

Cindy Mortesen, City Clerk

APPROVED AS TO FORM
Mark D Hensley, City Attorney

By
Karl H Berger, Assistant City Attorney