



Soft Story Seismic Retrofitting in Los Angeles & Surrounds

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From past earthquakes, multi-story buildings with weak and/or open front wall lines creating a “soft-story” performed poorly and collapsed. The goal of the mandatory retrofit program, under [Ordinance 183893](#) and [Ordinance 184081](#), is to reduce structural deficiencies by the most economical and feasible method.

Buildings that are most vulnerable have been identified with the following criteria:

- Consist of 2 or more stories wood frame construction
- Built under building code standards enacted before January 1, 1978
- Contains ground floor parking or another similar open floor space

The program does not apply to residential buildings with 3 or less units. Each property owner of these buildings will be sent an order to comply.

Before you think about what to do, consider creating the best possible experience by knowing *which questions to ask* under any circumstances. One new fact learnt can change the whole outcome.

The objective is to avoid a potential waste of time and money by sound preparation and surrounding oneself with *“the right people at the right time!”*

How do I know if I have a soft story?

Letters were mailed by the Los Angeles Department of Building and Safety (see chart below) to owners considered to be a “soft story” buildings.

It states that a new city (ordinance 183893) now requires that certain buildings built pre-1978 are in danger of being catastrophically damaged in

the event of an earthquake and must be upgraded within a specific time frame.

Owners have 2 years from the date their letters were mailed to provide satisfactory drawings to the LADBS. An experienced structural engineer with solid knowledge of the industry can be the first good move.

To double check if your building falls under the mandate you can visit: <https://www.ladbsservices2.lacity.org/OnlineServices/?service=plr>

Priority	Categories	Start date of Sending Out Orders
I. Buildings with 16 or more dwelling units	3 stories and above	May 2, 2016
	2 stories	July 22, 2016
II. Buildings with 3 or more stories	with less than 16 units	Oct 17, 2016
III. Buildings that don't meet Priority I or II criteria	with 9-15 units	Jan 30, 2017
	with 7-8 units	May 29, 2017
	with 4-6 units	Aug 14, 2017
	Condos/Commercial	Oct 30, 2017

- 2 years: Submit proof of previous retrofit, or plans to retrofit or demolish
- 3.5 years: Obtain permit to start construction or demolition
- 7 years: Complete construction

What is the definition of soft story?

A soft story is a name given to a weak floor or weak story, where the first floor is substantially weaker and more flexible than the floors above due to

lack of walls or frames at the first floor. Typically, these buildings contain large open areas for parking or commercial space such as restaurants or convenience stores on the first floor with large windows that leave the building highly vulnerable to damage in an earthquake.

Why do I have to do this?

Seismic Retrofitting creates a safer place for you to live. The structural elements that are added to the building are to possibly prevent the unfortunate event of a building collapse when an earthquake strikes. Retrofit Companies work with the Los Angeles Housing Department and the property owner to create a plan that will mitigate disturbances to your life as much as possible.

Where do I begin?

Before you talk to the engineer be prepared by writing down what you want to accomplish: Ask questions like what the project entails, how much will it cost, how long will it take, by when it needs to be complete and what could possibly prevent a smooth completion process, who is liable, what kind of Insurance is required. Ask about the permits that will be needed and if filing fees are included along with the overall cost of the project?

Once you get a notice to comply, check with the City to ensure that your building is indeed marked to comply with the ordinance. The second step is to try and locate the existing as-built drawings of your building. Given the age of these buildings, the City would most likely not have any records of the as-built drawings. A part of the soft story engineering cost is preparation of your building's as-built record drawings, so you can save some money if you can locate these.

How long will it take?

There are estimated 15,000 buildings in LA County alone which have been marked by LADBS to comply with the retrofit ordinance.

Year 2016 was the year of denial for most of the owners so not many owners acted on the ordinance. About 5000 permits have been submitted to LADBS which still leaves approximately 11,000 buildings that have not started the process yet.

Most engineers and contractors will soon start to get backed up so it's better to start your retrofit process sooner than later.

The regular timeline to get your engineering completed, permit approved by the City & THP submitted should be 4-6 months. Construction usually should take 1-2 months based on the size of your building and the retrofit solution. But remember that your project doesn't start as soon as you contract with a company. All of them have a schedule and clients who they have contracted with before you, so factor in time for scheduling which could be several weeks after contract.

What is Value Engineering?

Value Engineering will ensure that you get plans that will satisfy the city and be as simple as possible to construct with minimal work for a contractor and cost to the owner. Although an architectural company can help you with preparation of as-built drawings of your building, it is the structural engineer that has the professional background & qualification to determine best retrofit options based on calculations, therefore it is always advisable to contract with a structural engineering company directly. Most structural engineering companies will have their own in-house CAD draftsmen who will prepare the as-built drawings while their engineers will perform the calculations.

Is there just one way to do this?

There is definitely more than one way to retrofit for soft story. The most common and efficient approaches however are about three. Additionally, not all of these design approaches might be possible depending on your building footprint. There are many hidden variables such as utility lines, parking situation, turning radius, etc. which determine the best retrofit solution for your building. An engineering company that knows the industry will always present you with all options before they finalize the design on your building.

Should I let one firm to it all?

This is a very good question as the answer to this depends on you. Very few firms have in-house capability and license to engineer as well as construct. Also, by contracting with one company for both, engineering and construction, you are leaving all your eggs in one basket. It's a good idea to

have an engineer on your side that is not tied up with a particular contractor.

In some instances, it might be better to contract with one construction firm to do it all, as there might be less coordination, however there is a good chance that you will pay more for the engineering if you contract through a contractor as a contractor will most likely add a markup on engineering fee.

One more option might be to engage with an engineering company to assist you with engineering as well as construction administration. Remember that it's in the engineering company's best interest to make your designs efficient and to also minimize your construction costs.

How much does it cost to engineer & construct?

The costs will vary from project to project, depending on many factors, including size and complexity of the building.

Engineering Fee: This fee is usually 10% of the construction cost and having a reputable & experienced engineering company provide a lump sum proposal is the key. Another important thing to consider is the team size of an engineering company that you work with as you want to ensure there is a team of engineers backing up your project and not a 1-2 man shop. Finally, make sure that all permit runs and not charging you for time spent answering review comments from the City is included in your engineering contract. For example, Zenith Engineers Inc's fee proposal is always lump sum and their team doesn't charge the clients for permit running or answering review comments.

Construction Fee: This fee is usually what might break you bank so take your time and shop around for a reputable company. Unless you are guided by your engineer or receive a positive referral from someone you trust; you should obtain fee proposals from at least 2-3 soft story retrofit contractors. The construction fee and schedule depend on many factors and will vary from project to project.

Are there trustworthy contractors who specialize in this work?

Work with a licensed contractor to obtain cost and time estimates, including special inspections

<http://www.cslb.ca.gov/consumers/>

- Ask for project references of similar jobs
- Double-check in project type and verify the ability to complete projects on the schedule made and on budget
- Request a site visit, written proposal, anticipated schedule
- Request contractor's license, insurance and bond information

Will I lose parking spaces?

In very rare cases, will you lose parking space. In hundreds of retrofits that Zenith has engineered, we have never lost a parking space for our clients. It is imperative to contract with an experienced engineering firm which will guarantee that they look into various retrofit options so that you don't lose parking space.

What happens to my tenants during the construction?

Modern day retrofit designs and construction means and methods are so efficient that rarely the tenants will have to be relocated. However, there might be instances when the tenants will have to be relocated for construction safety compliance.

As per the LA Housing + Community Investment Department - If the work will not make the home uninhabitable outside construction hours and will not expose the tenant at any time to toxic or hazardous materials. The landlord is permitted to do construction work from Monday through Friday between the hours of 8 AM and 5 PM. The landlord must restore all housing services such as your utilities by 5 PM. The Plan should describe the safe work practices your Landlord plans to use. For example, lead safe practices must be used to minimize the spread of lead dust, paint chips, soil, and debris during construction.

Is there any he Cost Recovery?

The cost recovery program can be used to pay up to 50% of the seismic retrofit costs by passing it on to tenants. The maximum rent increase is \$38.00 per unit per month for 120 months. The recovery period may be extended until the full approved amount is collected. Seismic retrofit costs are divided among all units.

The cost recovery program application must be submitted within 12 months of completing retrofit work. Online application available at

<http://hcidla.lacity.org>. Your contractor should assist with all required documents:

- Copy of the Tenant Habitability Plan
- Documentation that supports the costs - Invoices & Proof of Payment
- Rent Roll which includes tenants move-in dates & current rents
- Finalized Permits & Certificate of Compliance

The cost recovery application is completed online. You can find the application [here](#).

Cynthia Landis is in charge of the cost recovery program at the city of Los Angeles Housing department and can be reached at: Cynthia.landis@lacity.org

What should I do if I think my building is exempt from the program?

The owner of the building can appeal within 60 days of the service date of the Order to Comply by submitting a written request to the Board of Building and Safety Commissioners. The request should include supporting documents such as building permits for original construction or a retrofit that complies with the ordinance.

Are there fines if I do not comply in time?

Failure to comply with the ordinance is a misdemeanor and may result in prosecution and/or administrative enforcement under the Los Angeles Municipal Code.

If you cannot comply with the Order by the compliance date, then:

Notify your Inspector if you need more than 30 days to resolve the problem, You **MUST** apply for an “extension of time”, by filling out the Request for Modification of Building Ordinances form and pay a fee of **\$346.62**. *(this fee varies due to circumstances as allowed by the code)*

If you are not working towards solving the problem by the compliance date, you will also pay a non- Compliance Fee of **\$660.00**.

If you do not pay the Non-Compliance Fee within 30 days, you will be charged a late fee of **\$1,650.00** for a total of **\$2,310.00**.

If you need a building permit to resolve your problem...then you must pay a minimum **\$400.00** investigation fee in addition to the normal permit cost (*Investigation fees can be more when substantial work has been done without a permit*)

In cases where you are working diligently but are unable to comply within the compliance period due to the complexity of the project, inform the inspector and the **\$660.00** fee may be suspended if justifiable.

Take no action and your code compliance case will then be forwarded to the City Attorney to seek compliance and potential criminal charges.

Note: Failure to pay these fees to the City may result in a **LIEN** against your property!

RESOURCES:

Soft-Story Retrofit Unit
[201 N. Figueroa St, 8th floor, Suite 890](#)
(213) 482-SOFT (7638)
(213) 202-9924
Soft-storyretrofit@lacity.org

Tenant Habitability Plan Unit
(213) 252-1464
hcidla.code.seismic@lacity.org

Cost Recovery Applications & RSO Information
(866) 557- RENT (7368)
HCIDLA.RSO@LACity.org