# Protected tree reports in City of Los Angeles: A market study

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WITHIN THE PAST FEW YEARS OF THE booming real estate market, a large part of my consulting practice has consisted of Protected Tree Reports (PTRs) for various municipalities around the greater Los Angeles region. I know from experience that when the market is good, there is more construction. More construction requires more permits, so more construction impact tree reports are required to comply with the various tree protection ordinances. To better inform my own consulting practice and those of my colleagues, I decided to undertake a market study. With this study, I attempted to gather data to answer three questions:

- How big is the market for PTRs?
- How sensitive is it to seasonal changes?
- How sensitive is it to changes in the real estate market?

I queried data from the US Census website on New Residential Construction. They have data on construction starts and construction permits issued, segmented by municipality and by month, among many other possible attributes. I queried monthly data from September 2015 through August 2017 (24 months) and data from January 2001 through December 2016 (16 years) for municipalities in the greater Los Angeles metro area. The monthly data was used to assess seasonal changes, and the annual data was used to assess general market trends.

I looked specifically at the City of Los Angeles for three reasons:

- City of Los Angeles is large in both land area and in population. It constitutes a significant portion of the market for protected tree reports within the greater metropolitan region.
- The City's tree protection ordinance requires a PTR to document the presence or absence of any protected trees of a certain species and size. It requires the preparer to have one of three possible combinations of credentials:
  - ASCA Registered Consulting Arborist; OR
  - ISA Certified Arborist AND Licensed Landscape Architect; OR
  - ISA Certified Arborist AND Certified Pest Control Advisor.
- The number of Protected Tree Reports correlates closely with the number of construction permits issued.

Recently, the City of Los Angeles has been requiring arborist reports for properties *even when there are no trees on the property*. The purpose of such a report is for the consulting arborist to verify independently that there are no protected trees present on the subject property or neighboring parcels. This contrasts with other municipalities such as the City of Glendale, which does not always require a PTR. That makes the City of Los Angeles unique because the number of PTRs to be written for the city correlates closely with the number of new construction permits issued. Whereas other municipalities may have a significantly smaller proportion of reports required relative

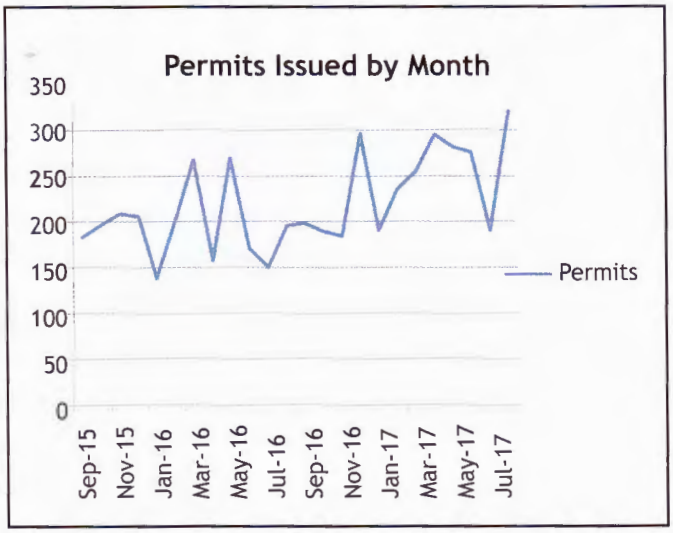
**Figure 1. Annual construction permits issued to various municipalities in the greater Los Angeles metro region between September 2015 and August 2017.**

| Construction Starts by Select Municipapities | |
|---|---|
| Los Angeles County | |
| City | Total Permits Issued * |
| Agoura Hills | 3 |
| Arcadia | 101 |
| Beverly Hills | 41 |
| Bradbury | 6 |
| Calabasas | 8 |
| Claremont | 32 |
| Glendale | 158 |
| Los Angeles | 2630 |
| Unincorporated LA County | 430 |
| Monrovia | 21 |
| Pasadena | 47 |
| Pomona | 94 |
| San Dimas | 14 |
| San Marino | 13 |
| Santa Clarita | 459 |
| Sierra Madre | 1 |
| South Pasadena | 6 |
| West Covina | 53 |
| * annualized for 9/1/15 through 8/31/17 | |

| Permits Issued by Month | | | |
|---|---|---|---|
| City of Los Angeles | | | |
| Month | Permits | | Permits |
| Sep-15 | 183 | Minimum | 138 |
| Oct-15 | 197 | Maximum | 321 |
| Nov-15 | 209 | Average | 219 |
| Dec-15 | 206 | | |
| Jan-16 | 138 | | |
| Feb-16 | 201 | | |
| Mar-16 | 267 | | |
| Apr-16 | 158 | | |
| May-16 | 270 | | |
| Jun-16 | 171 | | |
| Jul-16 | 150 | | |
| Aug-16 | 196 | | |
| Sep-16 | 199 | | |
| Oct-16 | 189 | | |
| Nov-16 | 184 | | |
| Dec-16 | 296 | | |
| Jan-17 | 191 | | |
| Feb-17 | 236 | | |
| Mar-17 | 255 | | |
| Apr-17 | 295 | | |
| May-17 | 282 | | |
| Jun-17 | 276 | | |
| Jul-17 | 190 | | |
| Aug-17 | 321 | | |

Figure 2. (Left) Construction permits issued by month from September 2015 through August 2017 in the City of Los Angeles.

Figure 3. (Below) Construction permits issued by month from September 2015 through August 2017 in the City of Los Angeles. No clear seasonal trend is observable, but there is sporadic variation on a month-to-month basis.




*The City of Los Angeles has been requiring arborist reports for properties even when there are no trees on the property.*

to the number of permits issued, City of Los Angeles may have a similar number of reports required.

### Market size

My first query looked at the size of the marketplace for PTRs. I looked at the number of construction permits issued by a selection of some of the municipalities in the greater Los Angeles metropolitan area known to have tree protection ordinances that require PTRs for construction projects (**Fig. 1**).

The data shows an overwhelming bias towards the City of Los Angeles in terms of numbers of permits issued relative to the other municipalities. This bias is likely due to the high population and land area contained within its borders. And, unlike other cities, it requires PTRs for all building permits. Furthermore, City of Los Angeles is known to require PTRs for properties even when no trees are present, unlike other municipalities. Because of Los Angeles' larger percentage of the whole marketplace for construction starts and because of its tendency to require PTRs for most of them, it represents a sizable market.

If it is true that the City of Los Angeles requires PTRs for new construction building permits to be approved regardless of the number of trees present on site, there could be an opportunity for 2,630 reports to be prepared per year. If most of them are "quickies" (no protected trees on site) and only take a few hours to make the site visit and write the report, that's roughly a full-time job (1600 billable hours per year) for 3-5 consultants.

One of the three possible credentials required to prepare a PTR for the City of Los Angeles is an ASCA Registered Consulting Arborist (RCA). According to the ASCA website, the number of RCA holders within 25 miles of downtown Los Angeles is 17. I did not quantify

the number of individuals that were both Certified Arborists and Landscape Architects or both Certified Arborists and Certified Pest Control Advisors, so there are likely other qualified individuals that prepare PTRs that are not included in my query. Also, I did not quantify the percentage of each consultant's practice that consists of preparing PTRs, so I do not have information on how the existing workload has been divided out among existing qualified individuals.

### Sensitivity to seasonality

It is well-known that the real estate market is subject to seasonal variation. Spring and summer months typically show higher demand for real property, with demand tapering off for fall and winter. The construction sector behaves similarly because construction starts are related to the real estate market; when property values are high, developers are more motivated to invest in new construction. So I extended my analysis of the market for PTRs to their sensitivity to seasonality. How confident can I be that there will be a steady flow of work over the course of a year?

I was surprised to find the seasonal variation was not as significant as I had expected. The difference between the minimum and maximum number of monthly building permits issued for the City of Los Angeles between September 2015 and August 2017 was only a factor of about 2.3 (**Fig. 2**). I also noticed that there was no clear seasonal trend (**Fig. 3**). There were highs and lows, but the number of permits issued generally followed a broader marketplace trend.

I did not have data on the amount of time it took to process those permits. It's possible that a large number were submitted in bursts and then became backlogged for multiple months, only to be eventually processed at a relatively steady rate. This may have resulted in a smoothing of the curve. If I had data on the processing time, I could potentially have worked backward and calculated the frequency distribution of plan *submissions* instead of plan *approvals*, which may have been a better reflection of the month-to-month demand for PTRs. However, without this data, I simply assumed that the processing time was constant.

### Sensitivity to Real Estate Market

Next, I broadened my view of the marketplace to the number of construction permits issued per year. I expected to see a trend that followed the real estate market: a steep increase during the boom years of 2004-2006, a decline during the recession of 2007-2012, and a subsequent recovery.

While the general trend matched my expectations, I was surprised again by the amount of variation. The difference between the high of 2421 permits issued in 2006 and the low of only 518 permits issued in 2009 was much higher: 4.6 (**Fig. 4**). And during the recession years, the number of permits issued remained very low until 2013 and 2014. That means that the market for PTRs is very sensitive to the real estate market. When the market is good, there is lots of PTR work; when the market is poor, the number of PTRs to be written is much lower (**Fig. 5**).

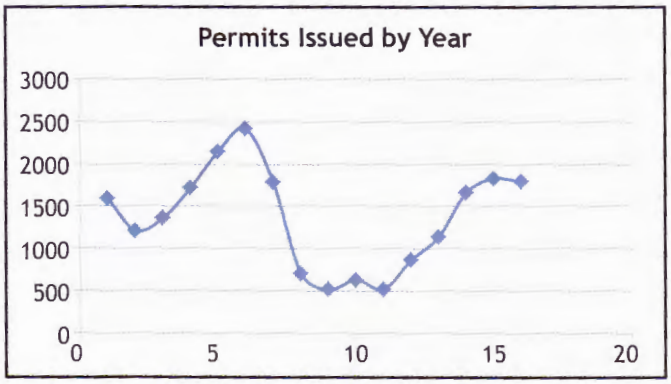
**Permits Issued by Year**

City of Los Angeles

| Year | Permits | | Permits |
|---|---|---|---|
| 2001 | 1596 | Minimum | 518 |
| 2002 | 1215 | Maximum | 2421 |
| 2003 | 1361 | Average | 1372 |
| 2004 | 1720 | | |
| 2005 | 2150 | | |
| 2006 | 2421 | | |
| 2007 | 1792 | | |
| 2008 | 712 | | |
| 2009 | 518 | | |
| 2010 | 636 | | |
| 2011 | 524 | | |
| 2012 | 870 | | |
| 2013 | 1144 | | |
| 2014 | 1668 | | |
| 2015 | 1834 | | |
| 2016 | 1796 | | |

**Figure 4. (Above) Construction permits issued by year from 2001 through 2016 in the City of Los Angeles.**

**Figure 5. (Below) Construction permits issued by year from 2001 through 2016 in the City of Los Angeles. A clear trend that correlates closely with the real estate market can be seen with a steep reduction in number of permits issued in 2007, low numbers through 2012, and a recovery beginning in 2013.**




### Conclusion

Within the greater Los Angeles metro area, the City of Los Angeles appears to comprise the majority of the PTR work,

based on the assumption that new construction permits require PTRs. There was not a clear seasonal trend over the past 24 months, but there was an irregular and sporadic fluctuation in the number of permits issued month-to-month. The overall trend of market volume correlated strongly with the real estate market, varying much more on an annual basis.

The market for PTRs in municipalities other than the City of Los Angeles may be expected to follow the same relative trend line of real estate market cycles. However, the market size may not match as closely with the total number of permits issued because not every property requires a PTR in other municipalities. Perhaps a future study could estimate the percentage of permitted constructions that have protected trees growing on the properties by estimating percentage canopy cover over various land uses and using that to estimate the percentage of permits issued that required a PTR.

### Works cited

U.S. Census. New Residential Construction. Accessed October 17, 2017. <https://www.census.gov/construction/nrc/index.html>

U.S. Census. Building Permit Survey. Accessed October 17, 2017. < https://www.census.gov/construction/bps/>

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## In memory of Jeremy Tibbets

JEREMY TIBBETS, CEO OF A PLUS TREE, INC. IN CONCORD, CA PASSED AWAY IN HIS PRIME—AGE 37 OCTOBER 14, 2017 of a heart attack.

Tibbets founded A Plus Tree, Inc., a TCIA-member company for 13-years, in 2002. He was a Board Certified Master Arborist and Tree Risk Assessor. He promoted the use of technology to improve tree care and the recycling of urban wood. He had clients from as far away as Seattle, Washington and Southern California.


Tibbets was involved in community service, and volunteered his time to educate the public about trees and participate in beautification projects. He served on the board of the California Arborist Association for six years from 2006 to 2012, and was president for 2 years after that.

Jeremy's vision was to expand and improve urban forest management throughout the industry and across the country by inspiring his colleagues, his clients, and people he had contact with. He was good at what he did, and very persuasive because of his good nature, enthusiasm, larger-than-life personality, endless energy, big heart, and infectious laughter.

He is survived by his wife, their four children and his parents.