

## **Durham-Orange (D-O) Light Rail Transit (LRT) Project Responses to Questions from the Pope's Crossing Home Owners Association**

1. At the homeowner's association meeting at the Pope's Crossing neighborhood July 30, 2015 a representative from GoTriangle stated clearly that studies showed homes near light rail stations averaged a 3 to 25% increase in property value. I have reviewed a fair number of studies and have never seen one that would justify this statement - the effect she spoke of, when it appears, is generally modest, is not well described by percentage, and if it were forced into percentage would be an average of 3 to 5 percent. It is possible that the representative found one very specific instance of a home going up 25%, but we could easily find one that goes down the same percentage if that is the case. Please supply the references that show homes are likely to go up in value as high as 25% and include links to these studies so we can review them.

### **GoTriangle Response:**

*Please see Attachment 1; this and additional studies regarding the impact which LRT projects may have on property values are located at: <http://ourtransitfuture.com/projects/durham-orange/property/>*

2. At the homeowner's association meeting at the Pope's Crossing neighborhood July 30, 2015 a representative from GoTriangle described the horn used by a light rail train to warn of its approach to a complex railroad crossing as being between 100 and 105 decibels and being four blasts, 2 long, 1 short and 1 long. Given that the crossing at the intersection of Pope Road and Old Durham Chapel Hill Road includes a roundabout with four roadway connections and is intersected diagonally by the light rail, the likelihood of the horn being required for safety is extremely high. The horn blasts starting 15 seconds before the train meets the intersection, as the requirements state, would put homes nearby, one only 80' from the tracks right where the horn would sound, at great risk of a severe drop in value due to extreme noise and vibration. Please send links to the guidelines for how the horn decision is made and explain what Triangle Transit would do to protect these homes.

### **GoTriangle Response:**

- a. *The information presented at the July 30, 2015 meeting regarding the use of horns - "100 and 105 decibels and being four blasts, 2 long, 1 short and 1 long" was referring to the way that freight and passenger railroads typically use train horns, not the way that Light Rail Transit Vehicles (LRT) use bells and horns.*
- b. *The Draft Environmental Impact Statement (DEIS) completed for the Durham-Orange (D-O) Light Rail Transit (LRT) Project includes a Noise and Vibration Technical Report which documents the results of the detailed noise assessment undertaken for the Project. A noise screening procedure was conducted to identify noise-sensitive areas within 350 feet of the centerline of the proposed LRT tracks or from the center of each proposed station and 225 feet from the center of the proposed park-and-ride lots. The impacts described throughout these responses are from this report which is located at: <http://ourtransitfuture.com/wp-content/uploads/2015/08/Appendix-K24-Noise-and-Vibration-Technical-Report.pdf>.*
- c. *As it shifts away from I-40 towards Old Chapel Hill Road, the LRT alignment will be approximately 80 feet from the nearest home. At 50 feet from the LRT alignment the noise it generates will register 46-49 dBA; the existing noise from I-40 is 61-65 dBA.*

- d. When the LRT passes through the roundabout that will be constructed by NCDOT at the intersection of Pope Road and Old Durham-Old Chapel Hill Roads, crossing gates will block the travel lanes over which the LRT will operate. The crossing gates will have bells that ring when the gates are activated: the LRT train may also use the bell on the train. As indicated in the excerpt below from the D-O LRT DEIS Noise and Vibration Technical Report, Table 11, Appendix K.24-71, the combination of the noises measured at 50 feet away from the source is less than the existing noise. The approximate distance along Pope Road from the future Old Chapel Hill Road roundabout to Olde Coach Road is 520 feet.
- e. The Federal Transit Administration (FTA) Office of Transit Safety and Oversight (SSO) (<https://www.transit.dot.gov/regulations-and-guidance/safety/transit-safety-oversight-tso>) “administers a national transit safety program and program compliance oversight process to advance the provision of safe, reliable, and equitable transit service through adherence with legislative, policy and regulatory requirements as established by FTA”. In North Carolina the SSO is administered through the NCDOT Safety Enforcement and Oversight Manager. During Engineering (final design), each at-grade crossing along the D-O LRT alignment will be subject to a diagnostic review led by the NCDOT Safety Enforcement and Oversight Manager. The outcome of this process will establish operating procedures, equipment and related improvements.

Excerpt from D-O LRT DEIS Noise and Vibration Technical Report Table 11 – Summary of Noise Impacts (D-O LRT DEIS – K24-71)								
Site No.	Alternative	Name/ Location of Receptor Site	Noise Sources	Project Noise (dBA)	Existing Noise (dBA)	Impact Range (dBA)	Impact	Impact Source
47	NEPA Preferred Alternative	Crystal Oaks Court	LRT	44	64	61-65	No	
48		Olde Coach Road	LRT	41	64	61-65	No	
49		Olde Coach Road	LRT	46	64	61-65	No	
50		Olde Coach Road	LRT, TPSS	49	64	61-65	No	
51		Old Chapel Hill Road	LRT, Bells, Park & Ride, TPSS	53	59	58-63	No	
52		N. White Oak Road	LRT, Bell, Park & Ride, Wheel Squeal	60	59	58-63	Moderate	Park & Ride

53		N. White Oak Road	LRT, Bell, Park & Ride, Wheel Squeal	56	59	58-63	No	
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3. After an informative presentation by Go Triangle on 7/30 by Juanita, Dick [Dave] and Jeffery my biggest concerns are the removal of trees and the effect of erosion, pollution and noise from I-40 until the new landscaping has a chance to mature. I don't think my property will be as severely affected as the owners further down and I sure feel bad for them but I am fearful of the unknown problems that could arise from removing so many mature trees with their massive root system and also the impact on our drainage systems.

Progress is good and for that I am not opposed to the general idea of getting ahead of transportation issues we are sure to face 20 years from now. I want to hear the bad with the good. No need to sugar coat it. I personally prefer to be prepared for the worse and pleased in the end when it "wasn't that bad". There are certainly cons and I want to hear FACTS on those along with the obvious sales pitch we heard last night. I do appreciate the time and efforts on both sides.

**GoTriangle Response:**

- a. *During Engineering (final design) we will identify the types and sizes of plant material that will be used to replace vegetation in areas that were temporarily impacted by construction. These trees and shrubs will include evergreens and hardwoods with different rates of growth. Within the permanent LRT operating corridor, areas directly adjacent to the tracks will be stabilized by grass.*
  - b. *At the beginning of construction, prior to clearing and grading, sediment and erosion control measures defined by the federal/state/local permitting agencies, will be erected. The condition and performance of these measures will be monitored for effectiveness and enhanced as necessary. The sediment and erosion control measures will remain in place throughout construction and service start-up, and until the disturbed areas have been stabilized.*
4. (A) Noise Abatement - the trees proposed to be removed and replaced won't do the job. The noise of trains running every 10 min. means possibly two trains every 10 minutes, since trains go both directions. Noise of accelerating and decelerating due to station: Measure of decibels reported at our HOA meeting was of train going smoothly and consistently at 40mph? (Not the case here.) Train horns, bells and flashing lights at crossing 18 hours/day. Vehicles idling, starting to move again. Traffic WILL increase on Pope Road (no, Olde Coach is unlikely to be affected, as stated at meeting), but Pope Rd WILL be, and numerous houses back up to Pope Rd. Overall if I phrase this as a question, it would be if you have really considered all the factors contributing to noise and unease in the Pope's Crossing neighborhood, because it seems you have only considered each contribution on its own merits?

**GoTriangle Response:**

- a. *The closest light rail station to the Pope's Crossing community is the Gateway Station which is bounded by Old Chapel Hill Road, North White Oak Drive, and I-40. The detailed noise assessment documented in the Noise and Vibration Technical Report concluded there will be at*

most a moderate noise impact to property along North White Oak Road in the vicinity of the Gateway Station (Ref.: Table 11, Site 52 above). Because light rail vehicles are electrically powered from overhead wires they do not generate the type of noise typical of combustion engines. The noise is generated by a combination of the light rail vehicle mechanical systems, the vehicle warning bell, the station park-and-ride and the wheel squeal that can occur in certain types of turns, which in this case would be north of the Gateway Station. Noise (and Vibration) associated with the Gateway Station would not impact the Pope's Crossing neighborhood or adjacent areas.

- b. In addition to examining the potential impacts that each individual project element may have during construction and operation of the of the D-O LRT system, indirect effects and cumulative impacts are also evaluated to determine additional issues that may need to be addressed as the Project moves forward. This is documented in Chapter 4.17 of the D-O LRT DEIS [http://ourtransitfuture.com/wp-content/uploads/2015/08/04\\_Chapter-4\\_Affected-Environment.pdf](http://ourtransitfuture.com/wp-content/uploads/2015/08/04_Chapter-4_Affected-Environment.pdf)

4. (B) Also construction noise – and for how long . . . a year?

**GoTriangle Response**

- a. As with other efforts undertaken to minimize potential impacts during construction and startup (vehicle operation before service begins), the timing of construction activities that may generate noise in excess of the impact of I-40 will be scheduled to avoid disruption. The construction management process will include the assignment of specific individuals who will coordinate with and provide updates to residents regarding construction activities, and will be available to respond to residents' concerns and questions.
- b. The 17-mile alignment has been divided into 3 construction segments along which work will be undertaken concurrently. Construction activities will be sequenced as different types of construction are undertaken. Work along the I-40 corridor adjacent to your homes will take place intermittently over the course of the construction phase which is anticipated to be about 3 years.
- c. A more detailed schedule will be developed for the entire construction and start-up work. It will be part of the information made readily available and updated to your community.

4. (C) I am general unhappy with the transit company for the lack of information provided to our neighborhood. Even though the website stated that all affected homes would be notified, it appears they meant only those that would be able to reach out and touch the train (I don't know if even those people at the north end of Pope's Crossing were contacted). I was literally told via email that, since my home is 750 feet from the rails, I won't be affected! That is ridiculous.

**GoTriangle Response**

Now that the D-O LRT alignment has been approved, project staff will be refining the design of the line and will have a greater understanding of the impacts, affects and the timeline of the light rail system. Moving forward, there will be more opportunities for your community to stay involved and informed about the project, especially as the project moves towards construction and during construction and start-up.

5. Where the light rail comes closest to a house in the neighborhood - a distance of 80' is awfully close. Is there no way to make the arc greater so that the train can swing farther away from that house? Maybe extend the distance to 100' or 120'?

**GoTriangle Response:**

*Minor alignment refinements may occur during Engineering (final design) however it is unlikely that this would result in substantial shifts that would move the tracks farther away from the house. The location of the D-O LRT alignment in this area is governed by a number of constraints including the Old Chapel Hill Road bridge over I-40, the future roundabout, the pump station and topography.*

6. Can we get a sidewalk running from Gateway station down the west side of Pope Road to Fountain Ridge Rd? Would there be a pedestrian bridge over Old Durham/Old CH Rd connecting Pope Rd sidewalk to Gateway Station, 50 yards south of the traffic circle?

**GoTriangle Response:**

- a. *The D-O LRT Project includes sidewalks directly adjacent to the Gateway Station along Old Chapel Hill Road from North White Oak Road, up to and around the roundabout.*
- b. *GoTriangle is working with the City of Durham on improvements including sidewalks which the City would make beyond the actual footprint of the D-O LRT Project. Through their Station Area Strategic Infrastructure Investments program, City staff is examining the need for sidewalks, utilities and other infrastructure improvements in the vicinity of all of the D-O LRT Stations.*

7. (A) The neighborhood without a doubt is noisier than when I arrived in 1988. When I moved in, you could not tell there was a highway there at all. Since then I-40 has been extended and widened. The traffic and noise have gone way up as the trees have come down. Lane construction some years ago created powerful thumping noises and vibration at night, enough to wake me from sleep.

I'm very concerned about the noise level. You claim the addition of the train will not increase what is already there. But as I said, noise has gone up dramatically over the years. I worry your evaluation is akin to the frog in the pot. Turn the heat up gradually and the frog will never jump out. In the same way, I worry that you consider only incremental changes at a given time and not the cumulative effect over the years.

**GoTriangle Response:**

- a) *The assessment documented in the D-O LRT Noise and Vibration Technical Report takes into consideration the forecasted growth that has and will continue to induce incremental changes. This document is located at: <http://ourtransitfuture.com/wp-content/uploads/2015/08/Appendix-K24-Noise-and-Vibration-Technical-Report.pdf>*
- b) *In addition to examining the potential impacts that each individual project element may have during construction and operation of the of the D-O LRT system, indirect effects and cumulative impacts are also evaluated to determine additional issues that may need to be addressed as the Project moves forward. This is documented in Chapter 4.17 of the D-O LRT*

DEIS [http://ourtransitfuture.com/wp-content/uploads/2015/08/04\\_Chapter-4\\_Affected-Environment.pdf](http://ourtransitfuture.com/wp-content/uploads/2015/08/04_Chapter-4_Affected-Environment.pdf).

7. (B) The neighborhood without a doubt is noisier than when I arrived in 1988, when I moved in. Will you accept a third party noise evaluation by the neighborhood before and after the rail project, and if that evaluation determines noise has increased, will you then be bound to remediate that noise back to the pre-rail level?

**GoTriangle Response:**

*In compliance with the National Environmental Policy Act, the Federal Transit Administration (FTA) has established the manner in which transit noise is analyzed and the criteria used to determine impacts and mitigation measures. The D-O LRT Project is required to follow these procedures which are in the FTA Noise and Vibration Manual located at:*

[https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf)

7. (C) How will you manage construction noise so that it does not disturb the neighborhood?

**GoTriangle Response:**

- a. *During Engineering (final design) a detailed construction noise assessment will be completed. This detailed assessment will provide property-specific detail that will then be used to develop mitigation plans to keep the noise levels at or below acceptable levels. Construction activities would be conducted in accordance with applicable state and local requirements, and would be limited to weekday daytime hours (typically from 7 a.m. to 6 p.m.) Noise would be monitored on a regular basis during construction.*

*Various means for the control of noise impacts during construction would be considered, including the following:*

- i. *Design considerations and project layout, such as noise barriers, minimizing the distance of truck routing, routing trucks away from residential streets, and locating noise-generating equipment as far away from the sensitive noise areas as possible*
- ii. *Operations sequence, such as avoiding nighttime construction in residential areas*
- iii. *Alternative methods, such as using drilled piers instead of impact pile driving, specifying quieter equipment in construction specifications, and alternative demolition and pavement breaking techniques.*

- b. *More detailed information is located in the D-O LRT Noise and Vibration Technical Report, Section 6.3 Construction Noise and Vibration Impacts:*  
<http://ourtransitfuture.com/wpcontent/uploads/2015/08/Appendix-K24-Noise-and-Vibration-Technical-Report.pdf>

- c. *In addition to other efforts undertaken to minimize potential impacts during construction and startup the construction management process will include the assignment of specific individuals who will coordinate with and provide updates to residents regarding construction activities, and will be available to respond to residents' concerns and questions.*

7. (D) The thought of a horn and/or barrier bells every 10 minutes as the trains run worries me too. What are your plans to eliminate this noise from the neighborhood? Remember, you claim the train will not add to the existing noise level because noise does not combine. I worry this will prove false.

**GoTriangle Response:**

The D-O LRT Noise and Vibration Technical Report includes an assessment of the existing noise which is experienced in your neighborhood and the noise that will be generated by the D-O LRT system. As referenced in Table 11 of the Report, the light rail project will not eliminate existing noise which is generated primarily by I-40. This document is located at: <http://ourtransitfuture.com/wp-content/uploads/2015/08/Appendix-K24-Noise-and-Vibration-Technical-Report.pdf>

7. (E) The benefit of a local rail station to me will depend largely on my ability to walk to it. Pope Road is not pedestrian friendly. What will you do to make a safe walking route from Pope's Crossing to the rail station?

**GoTriangle Response**

- a. The D-O LRT Project includes sidewalks directly adjacent to the Gateway Station along Old Chapel Hill Road from North White Oak Road, up to and around the roundabout.
- b. GoTriangle is working with the City of Durham on improvements including sidewalks which the City would make beyond the actual footprint of the D-O LRT Project. Through their Station Area Strategic Infrastructure Investments program, City staff is examining the need for sidewalks, utilities and other infrastructure improvements in the vicinity of all of the D-O LRT Stations.

7. (F) What is the type, initial size, growth rate, adult height, lifespan, and replacement schedule for the trees you said you'd plant to replace the ones you remove?

**GoTriangle Response**

The actual variety and size of replacement plant material will be determined during Engineering (final design). In addition to complying with Durham's requirements, selection criteria will include plant material (trees and shrubs) which are native and drought tolerant, slow and fast growing (which often corresponds to their lifespan); evergreen and deciduous and trees which remains full from the ground up versus those which lose their lower branches as they increase in height, etc.

7. (G) How long will the construction of the Gateway station and the rail line near Pope's Crossing take?

**GoTriangle Response**

- a. The 17-mile alignment has been divided into 3 construction segments along which work will be undertaken concurrently. Gateway Station and the alignment along I-40 are currently anticipated to be in the same segment. Construction activities will be sequenced as different types of construction are undertaken. Work along the I-40 corridor adjacent to your homes will take place intermittently over the course of the construction phase which is anticipated to be about 3 years. While construction at Gateway Station will also take place intermittently, it is likely to take longer, because it includes more project elements such as the station platform and park and ride facility.
- b. A more detailed schedule will be developed for the entire construction and start-up work. It will be part of the information made readily available and updated to your community.

7. (H) Will you monitor traffic on Pope Road and what measures will you take if traffic goes up?

**GoTriangle Response**

*The traffic impact analysis which will be required during Engineering (final design) evaluates existing and forecasted traffic conditions and changes that are anticipated to occur as a result of the LRT Service. Construction of the D-O LRT will include the improvements required by the City and/or NCDOT.*

8. I don't have any questions. I just hate this whole plan. It won't solve the problem of increasing traffic on 15-501, and it's painfully obvious you haven't thought through and modeled every aspect - the noise, the cost, the long-term financial support. If you really want to provide a viable public transit option, you need to stop looking at congested corridors (54, 15-501), and START looking at where people are trying to go. The RDU airport. The hospitals. Downtown Durham. Franklin St., existing park-and-rides and garages. Build a route linking those focal points cleanly and efficiently. As it is you're linking just a few key locations with this one circuitous route. Then instead of tracking through easements, woods, and watersheds, use eminent domain to devise a sane, efficient route. Specifically with regards to Pope's Crossing, it'd be the greater justice to simply buy and demolish all the homes than try to convince us of the lies that the noise won't be noticeable, that the property values will increase, traffic will be the same, and other such rubbish.

## Attachment 1 Durham-Orange Light Rail Transit Project

### Question:

What studies, if any, show a 25% increase in property value when such property is near an LRT Station?

### Brief Answer:

There are three specific studies that show an increase in property values of more than 10% when next to a light rail station. A study in 2002 by Cevero and Duncan showed that commercial properties next to light rail stations not in business districts rose in value as much as 23% and commercial properties within business districts rose as much as 120%. In 1993 Al-Musaind performed a study showing that the value of homes within 500 meters (residential properties) increased by 10.6%. Finally, consecutive studies in 1998 and 2002 by Weinstein and Clower showed that median values of residential properties near light rail stations increased 25% more than those properties not near light rail stations between 1994 and 1998 and between 1998 and 2001 increased by 23.1% near light rail stations as compared to 19.5% in control group areas.

### Studies:

There are many other studies and observations listed and referenced on the D-O LRT web site: <http://ourtransitfuture.com/realtors/> as well as those referenced by other transit agencies. The three main studies showing that increases in property value exceeded 5% are further explored below.

The Transportation Research Board published two of the studies discussed here, that of Cevero and Duncan, and Al-Musaind. Cevero and Duncan studies covered areas including Santa Clara/San Jose, San Diego, and Las Angeles. Linked in this memo is the study covering Santa Clara where commercial properties were shown to have increased in value by 23% in non business districts and by 120% in business districts.<sup>1</sup> Although this specific study was performed in regards to commercial properties, the question presented did not specify residential or commercial, simply property values. Al-Musaind's study in 1993 did however discuss residential property and discovered that some homes had premiums as high as 10.6% when within 500 meters to a light rail station.<sup>2</sup> This study was conducted in Portland, Oregon, and although not matching the 25% increase that was stated by Go Triangle, it is significantly higher than the average found by the member of the public raising the question.

The final studies, and most likely the most beneficial, were that of Weinstein & Clower in 1998 and 2002. These studies was conducted in Dallas in conjunction with the DART LRT and studied how residential properties next to Light Rail Station fared against properties not within close distance to stations. The 1998 study found that properties next to light rail lines increased in value

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<sup>1</sup> Cervero and Duncan, *Transportation Research Board*, Vol. 1805. No. 02-2273, p. 8-15, "Transit's Value-Added Effects: Light and Commuter Rail Services and Commercial Land Values," 15. <http://trrjournalonline.trb.org/doi/abs/10.3141/1805-02>

<sup>2</sup> Al-Musaind et al, *Transportation Research Board*, Vol. 1400. p. 90-94, "Light-Rail Transit Stations and Property Values: A Hedonic Price Approach. <http://trid.trb.org/view.aspx?id=383269>

by more than 25% as compared to those properties not near light rail stations. This study was further supported when 2002 it was shown that residential properties next to light rail stations increased by 32.1% as compared to 19% in control groups.<sup>3</sup>

### Conclusion:

While most studies indicate that there is a slight increase in property value, there are some studies that show a more significant increase. These increases however are not solely caused by the proximity to the light rail station, but by many factors. The Weinstein study itself shows how property value was going up for both near and non-near LRT station properties. It would seem then that properties have the potential to increase in value to numbers above 10%, and in some cases, studies have shown property values near light rail stations go up 25% more than properties not near light rail stations.

The following tables are a list of studies that have been found online by various agencies and articles that are supportive of light rail. Some of the links that lead to these tables are as follows:

- a. <http://slp2.org/documents/propertyvalfs04.pdf>
- b. <http://www2.hamilton.ca/NR/rdonlyres/20F92BDC-D3A0-47AF-B33C-0590486CA293/0/CommunityandEconomicDevelopmentPotential.pdf>
- c. <http://d2dtl5nnlpfr0r.cloudfront.net/tti.tamu.edu/documents/0-5652-1.pdf>

**Table 1: Affects of Light Rail Systems on Commercial Property Values**

<b>Dallas</b>	
2002 Weinstein & Clower	For office buildings, proximity to DART resulted in a 24.7% increase versus 11.5% for non-DART properties.
1999 Weinstein & Clower	The value of offices less than 1/4 mile from a station increased by 10% and retail property increased by 30%
<b>San Diego</b>	
2002 Cevero & Duncan	A 72% premium resulted for parcels near stations in the Mission Valley.
1997 Ryan	There was no significant premium in 3 market areas; a penalty in 2; and a small premium for industrial areas.
1995 Landis & Huang	There were no significant premiums for property 1/4-1/2 mile from stations.

<sup>3</sup> Weinstein and Clower, *An Assessment of the Dart LRT on Taxable Property Valuations and Transit Oriented Development*, 1, September 2002.

[http://www.valleymetro.org/images/uploads/lightrail\\_publications/2002\\_DART\\_LRT\\_Property\\_Values.pdf](http://www.valleymetro.org/images/uploads/lightrail_publications/2002_DART_LRT_Property_Values.pdf)

<b>Santa Clara/ San Jose</b>	
2001/2000 Cevero & Duncan	Properties less than 1/4 mile from a station experienced a 23% premium.
2001/2000 Weinberger	Rent for units within a 3/4 mile of a station increased 4-12%.

**Table 2: Affects of Light Rail Systems on Residential Property Values**

<b>Dallas</b>	
2003 Lyons & Hernandez	Value of properties rose 39% more than the control group not served by rail.
2002 Weinstein & Clower	Median values of residential properties increased 32.1% near DART compared to 19.5% in the control group areas.
1999 Weinstein & Clower	There was a 5% penalty over time for units nearer stations, less than 1/4 mile.
<b>Los Angeles</b>	
2002 Cevero and Duncan	Values rose 1-3.5% for apartments and homes 1/4-1/2 mile from a station, but decreased 6% for condos.
<b>Portland (Eastside)</b>	
1999 Dueker & Bianco	Median house values rose at increasing rates the closer to a station. The largest change, \$2,300, was for homes up to 200 ft. from a station.
1998 Al-Mosaind et al.	A 10.6% premium for homes 500 meters from a station was observed.
1998 Chen	A premium increase for houses closer to the station was observed, highest at 700 feet distance.
1997 Lewis-Workman et al.	On average, property values increased by \$75 for every 100 feet closer to the station (within 2,500 – 5,280 ft. radius).
1996 Knapp et al.	The value of parcels located 1/2 mile of the alignment rose the farther they were from the line; values rose the closer parcels are to stations.
1993 Al-Musaind et al.	The value of homes within 500 meters increased by 10.6% or \$4,324.
<b>Sacramento</b>	
1994/95 Landis et al.	There was no discernible positive or negative impact to property values (not statistically significant). Single family homes rose .4% for every 1,000 feet closer to a station, and 6.2% if very near a station.
<b>San Diego</b>	
2002 Cevero & Duncan	17% and 10% premiums resulted respectfully for multifamily homes near East Line and South Line stations.

2001 Cevero & Duncan	The value of condos and apartments from 1/4-1/2 mile from a station increased 2-18%; the value of single family homes decreased 0-4%.
1995 Landis et al.	The typical home sold for \$272 more for every 330 feet closer it was to a light rail station.
1994 Landis et al.	For every 1,000 feet closer to a station, prices increased \$337 or 1%, but decreased 4% for units closer than 900 feet to a station.
<b>Santa Clara/San Jose</b>	
1994 Landis	The price of single family homes increased by .1% for every 1,000 feet closer to a station, but decreased 10.8% if closer than 900 feet.
1994 Landis et al.	There was a \$1.97 decrease in property values per meter closer to light rail (effect may be due to proximity to industrial/commercial uses).
<b>Toronto</b>	
1983 Bajic	There was a \$2,237 premium for the average home.
<b>Vancouver</b>	
1988 Ferguson	A \$4.90 premium per foot associate with proximity to station was found.