The business chapter missing from the EIS.

True mixed development will create new urban villages at based on businesses, offices and transit at Shoreline Center, Town Center, West 145th (and East 145th for completeness). When I bring up dumb density I am referring to increased density with none of the infrastructure such as sufficient roads, shopping and transit needed to support it. It is the easiest to zone and build, but it will force additional lanes on 185th, Meridian and 5th. It appears to me that we are trying to use residential (arterial and secondary) road widths to accommodate an increased population of 56,000 residents and the light rail is insufficient. I have a premise that we cannot create business and office growth with bus transit broadly enough to create a necessary and urgent reduction in traffic. A lack of building in the 185th area, North City and Shoreline Place in the last year is a warning alarm, especially while Seattle is booming. Since Shoreline didn't do its own business summary for the upzone EIS's; I'll try to piece together the elements I could find. It's a three legged stool of population, business/office and transportation. This is a long comment since I'm contributing a fresh business chapter for each of the EIS studies.

- 1) The 185th area has residential streets and the way Shoreline Dev code works is while Traffic Impact Fees are collected, new buildings are built nearer the street, making future road widening expensive or prohibitive.
- 2) We should limit density between 5th and I5 due to the ground being below street level. The Planning Commission has set precedent that additions to the upzone were avoided in similar situations further north.
- 3) In terms of TOD calculations 185th, Meridian and 5th are both arterials and local roads. The model will be more accurate for Richmond Beach Rd and Point Wells than the mixed streets in the rezone areas.
- 4) A lack of office space makes the traffic picture worse or slows the development for 185th and 145th.
- 5) Density should be minimized where businesses, office space and buses are rare and cars are plentiful.

I start with the BAE market study (the link is in Chapter 5 References in the Final 185th EIS. http://www.shorelinewa.gov/home/showdocument?id=15888). The Exec Summary says, "Retail should be limited to a small amount of convenience oriented retail serving residents and transit riders and located at the transit station. The station area lacks existing retail uses, with the nearest neighborhood retail area located just over one-half mile away on 15th Avenue NE, and the City's primary commercial corridor on Aurora Avenue North a mile away." In the main study it says:

"However, the station area is too far from either of these areas, or Interstate-5 access, to benefit from existing retail activity, making it unlikely that a significant number of retailers could be attracted."

[BAE] "Convenience-oriented retail (e.g. coffee shop/café, sundries, personal services, etc.) located at the station, or within a direct sight line between the station and any parking

structure, would maximize access to transit riders and immediate area residents and have the greatest potential."

This study is assuming a drive-to-the-station scenario. Except that Sound Transit only gave us a 500-car garage, and the185th EIS assumes 55% external car trips with 35% multimodal inside and just 10% commuting transit during Peak PM hour. The trip from the station to Aurora is 1 mile, and business centers at Town Center and the station area would leaving a quarter to a half mile for drivers only. Thus, we need some required commercial space in the corridor out to Aurora. BAE fails to realize that station density needs to have a vibrant commercial community, which would include grocery stores, big box stores, in addition to convenience retailers. Since the EIS comes up with 20,000 Peak PM hour total trips, that leaves 18,000 peak PM hour trips to be by car, walking or bike. If all we get are a couple of convenience stores in sight of the rail station, Meridian and 185th are in trouble. If the upzone grows too slowly or in an unbalanced way, then the roads are still in trouble.

I looked up some grocery store numbers that count customers per square foot. For a 25,000 square foot store, the upzone would need over 6,000 households to interest a retailer, but the Dev Code specifies just under 70 parking spots for these commercial spaces. Do you think any major store is going to occupy commercial space with this little parking available? Zoning isn't just what can be built but also what will be useful. Assuming a slightly low single car for each household, the number to justify a business turns into 6,000 x 5 daily trips or 30,000 daily trips (of which transit only represents 3,000 trips). A store will attract 1 to 7 visits per week for each of 6,000 households--up to 32,000 weekly trips--and more trips from customers outside the upzone. Paradoxically, in terms of road width and garage space, business, offices and transit are more important around the 185th upzone in its R6 incarnation than in its vibrant, densified community.

[BAE] "Developer and tenant interest will be more focused on the Aurora Avenue North and North City15th Avenue NE corridors because they are established locations that already offer a mix of housing types and retail choices that appeal to both younger millennial and older empty nester households seeking a more mixed-use urban environment. Interest in station sites is likely to increase as available development sites in North City become more limited."

However, it appears that North City has been emptying out more than filling in. The filling in has been residential, not business, on the edges of the zone with only business remodeling near the core. I'm predicting the station areas have already taken the attention away from North City and Shoreline Place. But we still haven't seen any Shoreline buildings styled after the MUR45 with ground floor retail and residential above. How many residential-only units can we build with just speculation that businesses are going to show up?

[BAE] "Within the station area, the market can support higher density residential, as well as ground floor commercial uses that will attract pedestrians heading to and from transit."

Apparently the traffic team didn't read this before looking up their TOD numbers for a vibrant community. It clearly answers a TOD question and fails to consider the vibrant community. Market forces have spoken since March 2015, when the 185th upzone was finalized. In that time Seattle development has boomed and Shoreline has had 2 residential permits on the table for the 185 upzone and expiring permit with no ground breaking in Shoreline Place as well as a missing Arabella II in North City.

[BAE] "Most of this (Shoreline) growth (68 percent) came from the development of multifamily units, compared to 54 percent of County units. This suggests that the market is already responding to meet the needs of smaller households."

[BAE] "In the Trade Area, apartment rents range from \$940 per month for a 420 square foot studio built in 2012 to \$2,300 for a 1,380 square foot two-bedroom/two-bathroom unit built in 2013. Occupancy rates exceed 90 percent, indicating a relatively healthy rental market."

I'm hearing we actually have a glut of unoccupied apartments thanks to the Aurora Corridor project. Is it possible that Shoreline asked the wrong question at the start of the Economic Study for 185th, and that the essential business, office space and buses to keep 185th at its current road width have never been studied?

The Leland draft of the Economic Study for 145th referenced in the Final EIS for the 145th Upzone, can be found at: http://www.cityofshoreline.com/home/showdocument?id=17855, Chapter 4.

[Leland] "Shoreline is currently looking at ways to make NE 145th Street more pedestrian and development friendly. These station-area challenges underscore the importance of looking to side streets such as 145th Street slopes up to the west, which will make ground-floor retail on this street challenging; developers only build retail on sloped streets in the most high-density urban districts."

[Leland] "However, there will be challenges to development in the station subarea as well. These include a high degree of parcelization (many small properties in diverse ownership), little "center" or sense of place as yet, a pedestrian and bicycle network that is disconnected in some key locations, topography, and a challenging transportation and pedestrian environment on NE 145h Street. Similar challenges have been overcome elsewhere and can be overcome in Shoreline with the right plan, implementation strategy, investment, and time."

As a local resident of and home owner in Ridgecrest I have been a regular transit rider and thus paying attention to Metro's 5-year strategy plan, I perceive the future bus service from Aurora to the transit station will be lacking and access to the station from the west side of the I-5/145th Interchange is more pedestrian challenging than pedestrian friendly (care to haul 30 pounds of dog food over an overpass ramp?).

The Leland draft study goes on to say: "One reason is that most transit trips are home-to work trips, and people choose to live where they can take transit to work or school."

Traffic numbers in both upzone EIS's came from a mixed use reduction to traditional Peak PM hour trip numbers calculated using the MXP technique. It calculates the trips generated, not the distance travelled. Most adults have the practiced trip reductions. It doesn't make any sense to come back home after each leg of your errands. The problem with the residential upzones is there are very few destinations to chain together. A lot of my concerns are caused by the pace of activity, if we had 3-5 MUR45 (not townhomes, but 1 commercial and 3-5 residential floors) under construction, I wouldn't be saying so adamantly that we have a problem. The expected setbacks on 185th are targeted for sidewalk and bike expansion; there can be no widening of the street or additional lanes without property purchases (which become more expensive as new buildings are constructed closer to the road). Given the similarities between 145th and 185th streets, we can predict from the findings of the 145th Street corridor study that a couple of more traffic lights, restricted left turns and bus bulbs in the 185th Street Corridor will not be sufficient to handle the increased traffic in the upzone. With the average household making an average of 4-6 trips a day, the use of Peak PM hour doesn't tell the whole story. It doesn't take into account that Saturday total trips are higher than weekday total trips, and it doesn't emphasize the importance of business on the other side of the seesaw from residential. The Institute of Traffic Engineers (ITE), started with 6 categories to create a mixed use traffic number. (Residential, Business, Offices, Theater, Transit (light rail and buses) and hotels) from http://nacto.org/docs/usdg/trip_generation_ite.pdf. An ITE definition of a MXD is

[Nacto] "A mixed-use development or district consists of two or more land uses between which trips can be made using local streets, without having to use major streets. The uses may include residential, retail, office, and/or entertainment. There may be walk trips between the uses."

I'm concerned if we ignore offices, we have now reduced a six attribute equation to a 3 attribute equation that may or may not capture as much of the predicted benefit of TOD. I question how unfair my seesaw with residential on one side and business on the other is when I talk about simplifying an equation. In my defense, my "seesaw" image is a visualization for discussion and highlights what we can easily get, what we have problems getting, and what happens to the number of lanes to be added if the seesaw becomes unbalanced. You need professional assistance to figure out how unbalanced it can become without causing unreasonable congestion.

Table 1 TOD sites across the US

Location	Units	Office (sq ft)	Retail (sq ft)
Atlantic Station, GA	798	550,600	434,500
Baystreet Station, NJ	381	N/A	382,000
RiverPlace, OR	700	40,000	26,500
185 th Shoreline (est)	23,000	1.3 to 15 Mill	ion 0.8 to 12 Million
145 th Shoreline (est)	13,486	0.8 to 9.3 Mil	lion 0.5 to 7.3 Million

In Table 1 I have included matching numbers from 3 other TOD sites around the US. The calculation used a per unit number for the sq ft of office and retail multiplied by the units expected in Shoreline. The Georgia site was an old industrial park completely scalped and needed all the infrastructure. The Oregon site was an add-on to downtown Portland and only required an incremental addition to infrastructure.

According to https://www.bozeman.net/Smarty/files/85/8598c759-766c-4186-bd78-1a38947e42be.pdf the land-use types and adjustments embodied in the lookup tables are now limited to the three uses: residential, retail, and offices. The traffic impacts of other mixed uses cannot be assessed. Their analysis included statistical equations derived from the data revealing that the primary factors affecting this reduction in automobile travel are:

- 1. The total and the relative amounts of population and employment on the site;
- 2. The site size and activity density;
- 3. The size of households and their auto ownership;
- 4. The amount of employment within walking distance of the site;
- 5. The block size on the site; and
- 6. The access to employment within a 30 min transit ride of the site.

A note for Puget Sound that very few employers meet the 30 minute ride either in terms of walking when you leave transit or connector buses. I am also concerned that 185th is an arterial and also used as a local street in the upzone. To fit the definition, 185th street would be the arterial out to Aurora and the other local streets would be used for errands and internal zone traffic.

The Leland Study states that we want, ""Place Making"—creating an interesting, vibrant, people-oriented place at the station or nearby that will attract those looking for housing." "Within a 20-year timeframe, most retail is likely to be "pulled" into place as part of mixed-use projects, with housing above and some retail on the ground floor. Such retail and commercial space can provide a tremendous benefit, as restaurants, coffee shops, dry cleaners, day care, financial services, and other small tenants can enable residents and workers to accomplish many errands within one trip or a short walking distance, and create a sense of place in the station area."

[Leland] "The environment for large-format retail is very competitive, and nearly all retailers are located on high-traffic arterial roads, particularly Aurora Avenue N, and also 15th. Most grocers seek locations where they are at least a mile from the closest completion, and therefore, a grocery anchor is unlikely until such time as the station area has developed considerably."

This sounds like the seesaw tilts significantly toward residential cars trips long before any meaningful trip reduction occurs due to new businesses help balance it out. Shoreline should really care whether that "many errands within one trip" is by car or bike/walk, then multiply it

times the number of residents in the upzones. (The impact by Sound Transit and the city on their decisions for the Interchange section of 145th will be discussed later.) Since part of this discussion is about affordable housing, let's mention that smaller stores may be within a walkable distance, but doesn't have the value of larger stores in terms of healthiness, price and selection. Around the east side of 145th, we can estimate no traffic reducing businesses so wouldn't it make sense to lower the density and car trips? Dense compact communities are valid, putting them in the wrong place is bad.

Without a business chapter in the EIS, we don't have any idea of the volume of walkable customers required to support the list of shopping destinations mentioned in the Leland study above. This list is useful to describe what we are trying to add to our new business centers, but it also adds perspective to the volume of delivery trucks and service vehicles needed by each coming into the upzone, which tend to park in the middle lane of the street in Seattle to make deliveries. The EIS haven't described which roads will be used or not used for this kind of traffic. It also points out the volume of local traffic on the 145th interchange/station area if business types and names aren't balanced on both sides of the interchange in the upzone. With the Paramount Park expansion plans and utility easements between 12th and the east side of 8th Avenue as well as slope concerns west of 5th south of 160th, there may not be enough customer base in the upzone to support new businesses on the east side of 145th. There is also a concern of how close new businesses will want to be to the established business center a half mile away at 15th and 145th. I propose there is more business potential at 165th and 5th around the existing Crest Theater area, which already has some residential density around it, and doesn't have a grocery store within a half mile radius making a better case for supporting a grocery in that location long term.

To reduce congestion around the stations in residential areas we need to minimize the car trips and increase the bus access to the station. Recognizing that internal trips within the residential areas are about 3 times that of commuting transit trips which was hidden in R6 traffic and will become a concern in density. Seattle prefers urban villages and doesn't always require businesses, but they have wider arterials than Shoreline.

[Leland] "Make key pedestrian, bicycle, and auto improvements in the station subarea. These will help to improve the sense of place and increase developers' interest in the area. A pedestrian and bicycle bridge over I-5 should be considered (added at huge expense later), along with improved connections in the neighborhoods to the east and west, with the goal of connecting the station to Aurora Avenue N and 15th."

The 145^{th} corridor actually stretches from Greenwood to 522, but the I-5 interchange in the middle is a virtual wall for pedestrians and cyclist. The recommendations from the 145^{th} Street Corridor Study with its pedestrian ramp over the western off-ramp and the eastern underpass for commuters are part of it. The addition of lanes of cars and width at the Interchange doesn't improve the experience. Please walk the $145^{th}/5^{th}$ avenue intersection. Walk down under the underpass to the bus ramp highway exit to get the feel and sounds of just how much "Sense of

Place" can be created around the transit station. We are making investments in multimodal access to the 145th station, but the winners are bikes and cars. The losers are pedestrians and buses. At 185th a "sense of place" can be created; however, 145th/5th needs to be a connector between buses and light rail with a "sense of place" at 5th/165th.

For the 145th rezone, the overlay from the previous SE rezone should focus on park development from 12th to the East side of 8th using a future acquisition (limited) sub-R6 zone. From the West side of 8th to the East side of the freeway using a limited MUR35 zone focused on single family small house and smaller lots allowing single story for mobility challenged residents. Future growth on the west side of 145th and up around 165 needs to be phased with the completion of business and office infill at 185th.

While the city got an another award for its 185th design and the thoroughness of its review the other night, we should look at the zoning map again and consider zoning just the third of a mile around Town Center and a third of a mile around Shoreline Center, with the dogleg up to North City or spend considerable time in the Dev Code limiting residential to the pace of business formation. A residential area can grow slowly at Shoreline's expected rate, but a transition from R6 to vibrant community requires business and office formation faster than Shoreline can expect. Future city studies should focus on corridor nodes like pearls on a necklace to match the current Metro bus practice of stopping every half mile. Shoreline and the TMP will be better considering a matrix of small dense communities around a variety of businesses and offices with multimodal trips between a couple of nodes in the matrix reducing arterial use and longer trips. Building grand corridors just clogs the arterials with cars going longer distances.

Thank you for listening,

Dave Lange

Shoreline