

From: [Dave Lange](#)
To: [City Council](#); [John Norris](#)
Subject: Re: Comments for the Council 9-26 Public Comment 8a
Date: Friday, September 23, 2016 2:02:30 PM
Attachments: [Council 9-26.docx](#)

Thank you for reading,

Dave Lange

Shoreline

On Fri, Sep 23, 2016 at 1:48 PM, City Council <Council@shorelinewa.gov> wrote:

Hi Dave,

Did you mean to include an attachment?

Heidi Costello

City of Shoreline

City Manager's Office

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check out: <http://surprisedbyshoreline.com>

From: Dave Lange [mailto:umbrellahouse@gmail.com]
Sent: Friday, September 23, 2016 1:45 PM
To: City Council; John Norris
Subject: Comments for the Council 9-26 Public Comment 8a

Thank you for reading,

Dave Lange

In the past I have pointed out that density doesn't actually do anything to reduce car trips, but it does offer the opportunity to reduce car trips. The question for Shoreline is what someone will walk to, maybe bike to and realistically drive their car to in the first 20 years. Looking at the V/C numbers in the EIS and mitigations for growth should convince you that Shoreline's TOD has a problem. The street infrastructure problem looks worse with nearly a doubling of the V/C numbers for the 145th rezone.

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Table 3.3-6 Average Daily Traffic Volumes and PM Peak Period Congestion for the Full Build-out of Alternative 4—Preferred Alternative

Street	Segment	Existing ADT	No Action ADT	Preferred Alt. ADT	Pref. Alt. PM Peak Hour Volume ¹⁰	Preferred Alt. V/C
East-West Corridors						
175th Street	West of I-5	30,770	39,490	52,820	2,115	>1.0
175th Street	East of I-5	18,010	21,180	28,590	1,186	0.76
185th Street	West of I-5	9,700	17,180	34,620	1,831	>1.0
185th Street	East of I-5	7,130	11,360	17,080	937	.94
North-South Corridors						
5th Avenue NE	South of N 185 th Street	3,360	5,700	8,770	399	0.57
15th Avenue NE	North of N 175 th Street	15,040	20,340	21,610	1,470	0.79
Meridian Avenue N	North of N 175 th Street	12,070	15,140	26,100	1,602	>1.0

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Table 3.3-9 Average Daily Traffic Volumes and PM Peak Period Congestion for Alternative 4—Compact Community Hybrid (Full Build-Out)

Street	Segment	Existing ADT	No Action ADT	Compact Community Hybrid ADT	No Action PM Peak Hour Volume ¹²	Compact Community Hybrid PM Peak Hour Volume ¹¹	Compact Community Hybrid V/C Ratio
East-West Corridors							
N/NE 145th Street*	West of I-5	25,240	30,430	55,250	1,650	2,920	1.77
NE 145th Street*	East of I-5	31,790	37,650	65,670	1,630	2,760	1.67
N 155th Street	West of I-5	11,640	14,920	40,000	700	1,860	1.95
NE 155th Street	East of I-5	9,900	12,380	20,030	610	940	0.98
North-South Corridors							
5th Avenue NE*	I-5 NB on-ramp to 155th Street	7,170	9,230	15,700	670	1,280	1.83
15th Avenue NE	145th to 150th Street	16,130	20,060	36,760	1,290	2,150	1.07
15th Avenue NE**	150th to 155th Street	14,240	18,640	26,340	1,150	1,540	1.28
Meridian Avenue N	145th to 155th Street	6,220	9,310	23,070	650	1,320	1.58

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

downtown Portland and only required an incremental addition to infrastructure. Shoreline is an outlier and therefore the traffic numbers and distributions are a poor fit for at least the next 20 years. . The traffic numbers and distributions contributed by the Traffic Team in Public Works were borrowed from Sound Transit for a well-developed community and unfortunately used for the 145th corridor study.

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 Million	0.8 to 12 Million
145 th Shoreline (est)	13,486	0.8 to 9.3 Million	0.5 to 7.3 Million

A basic TOD assumption says there are an average of 5 daily trips per unit and if each unit commuted daily using transit we would show 20% of the trips as commuting by transit. The Shoreline EIS predicts transit captures 50% of the commuting trips to get the 10% transit number. Looking in the 185th final EIS we see approximately 23,000 units while the 145th final EIS shows 13,486. If we are only getting 10% transit trips out of the rezones, we don't need to put them at the stations. Actually the 90% of other trips will likely hurt the bus transit using the stations. Its bad enough considering that every transit trip I take, I have to interact with 9 pollution spewing cars with the increased density. If Shoreline goes ahead with its rezones, it needs to seriously consider what it is going to do to reduce the future car trips (density isn't a complete answer). Its not just a matter of reducing car trips its making car trips local to the area someone lives and not going to the far end of town. There are several reasons why moving the rezones next to existing business districts actually makes sense.

Location	185 Rezone	145 Rezone
Units	23,000	13,486
5 trips per day per unit	115,000 ADT	67,430 ADT
10% Transit trips per day	11,500	6,743
Other trips per day	103,500	60,687

The “Other trips per day” would be the internal and external trips from the EIS. Given the Development Code passed by the Planning Commission there isn’t a lot of stores and services to walk and bike to. Most of these trips will use the nearby arterials for part of their travel and if the Aurora Corridor is 40,000 ADT, these numbers will be large. The following picture explains why the car will be the more likely choice than transit and why transit planners don’t talk about errands and shopping. Just being close to the station is no reason to give a parking reduction, having a certain square footage of business in a quarter mile is a better requirement.



The following tables from both rezones hide the volume of the problem looking at Peak PM trips only. While 145th is a smaller rezone it starts with higher traffic volumes.

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Table 3.3-4 Percentage of Trips by Mode

Action Alternatives	External Walk/Bike Trips	External Transit Trips	Internal Trips	External Auto Trips	Total PM Peak Trips Generated	External PM Auto Trips Generated	Daily Transportation-Related GHG Emissions
Dispersed Land-Use Model w/ Alt. 4—Preferred Alternative Population and Employment totals	4%	4%	25%	66%	20,111	13,312	640
Alternative 4—Preferred Alternative	10%	11%	35%	45%	20,111	8,967	320

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Table 3.3-5 Percentage of Trips by Mode and GHG Emissions

Alternative	External ⁹ Walk/Bike Trips	External Transit Trips	Internal Trips	External Auto Trips	Total PM Peak Trips Generated	External PM Auto Trips Generated	Per Capita GHG (metric tons / 100 households)
Dispersed Land-Use Model with Alternative 3 Population/Job totals	4%	5%	15%	76%	17,894	13,599	7.1
Alternative 4 – Compact Community Hybrid	12%	10%	23%	55%	18,061	10,160	2.6

The EIS should be a hint that transit is primarily a commute mode of travel. The local trips and external trips are where shopping and errands occur. Putting residential density into the core of the station area as phase one blocks eventual development of new business centers for Shoreline. Starting new residential density around the stations will develop meaningful businesses so slowly it will require cars for more than the first 20 years. This isn't the older generation that will eventually leave, its the business environment of a small community stuck between a couple of larger cities. The 145th station area is a poor choice with an existing business center at 145th and 15th which is less than a mile from potential businesses at the station. Having 2 sides of the rezone with the freeway as a separator means local cars will use the regional arterial to drive to the other side for the preferred business name and service.

Locals will tell you that adding more functions to the intersection of 145th and 5th was a bad plan. Piling more on the intersection of a regional arterial and the local ramps for a major freeway we can expect there is little a corridor study, light rail station and rezone can do to minimize existing congestion without adding more congestion. Metro took one look at the proposed ST station and moved it a couple of blocks north. Metro is planning 4 routes in addition to the 522/Northshore ST3 buses. Given their importance similar to the 522/Northshore route means we should expect similar frequencies. The result is an expected 48 buses an hour serving the 145th station. I have experience with the South Lake Union Trolley and walking faster than I could ride. Shoreline thinks in terms of Pedshed radius; however,

buses calculate the length of the run. Having buses wait for traffic lights for longer than 15 minutes significantly shortens their effective routes.



Why does downtown Seattle have more trees than we are expecting on Shoreline's 5th Ave? Picture these buses on a 3 lane 5th Avenue and a full rezone of cars interacting with them including the freeway on ramp.

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**Table 3.3-5 PM Peak Period Intersection Level of Service
for the Full Build-out of Alternative 4—Preferred Alternative**

Signal Type	Intersection	Existing LOS	Existing Delay (sec. / veh.)	No Action LOS	No Action Delay (sec. / veh.)	Preferred Alternative LOS	Pref. Alt Delay (sec. / veh.)
Signalized	185th St / Meridian Ave	D	54	D	45	F	>120
Signalized	185th St / 1st Ave	A	<10	B	14	F	>120
Unsignalized	185th St / 5 th Ave	B	23	F	>120	F	>120
Unsignalized	185th St / 7 th Ave	B	20	E	36	F	>120
Unsignalized	185th St / 10th Ave	A	11	C	21	F	108
Signalized	15th Ave / Perkins Way	C	21	D	53	E	59
Unsignalized	180th St / 10th Ave	A	<10	C	20	F	>120
Signalized	180th St / 15th Ave	A	<10	C	22	D	38
Signalized	175th St / Meridian Ave	D	51	D	54	F	110
Signalized	175th St / I-5 SB Ramps	C	30	E	79	F	>120
Signalized	175th St / I-5 NB Ramps	D	45	F	>120	F	>120
Signalized	175th St / 5th Ave	C	25	C	26	D	34
Signalized	175th St / 10th Ave	A	<10	B	16	D	48
Signalized	175th St / 15th Ave	D	47	D	53	E	69

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**Table 3.3-8 PM Peak Period Intersection Level of Service
for Alternative 4—Compact Community Hybrid (Full Build-Out)**

Signal Type	Intersection	Existing LOS	Existing Delay (sec. / veh.)	No Action LOS	No Action Delay (sec. / veh.)	Compact Community Hybrid LOS	Compact Community Hybrid Delay (sec. / veh.)
Signalized	145th St / Meridian Ave	B	16	D	55	F	940
Signalized	145th St / 1st Ave	B	18	E	57	F	>1000
Signalized	145th St / SB I-5	D	46	E	66	F	223
Signalized	145th St / 5 th Ave	D	42	F	81	F	570
Signalized	5th Ave / I-5 NB On-ramp	A	<10	A	<10	D	39
Signalized	145th St / 15th Ave	E	60	F	94	F	310
Signalized	150th St / 15th Ave	B	16	C	21	E	69
Signalized	155th St / 15th Ave	C	30	D	37	F	940
Signalized	155th St / 5th Ave	B	10	B	17	F	>1000
Unsignalized	155th St / 1st Ave	C	21	E	49	F	223
Signalized	155th / Meridian	B	14	C	27	F	570

Notes: Large delay values (over 240 seconds) rounded to the nearest ten; Level of Service results do not incorporate improvements identified in the 145th Street Multimodal Corridor Study

Notice the footnote about not incorporating improvements identified in the 145th Corridor Study. There is a limit to delaying north/south traffic to benefit run times from Lake City to the station or Aurora to the station. Queue jumps may advance a bus 3-8 vehicles per stop light. Limited left turns should not impact the values in this table. I can summarize the affects this has on Bus Rapid Transit with a simple saying "This is not my Shoreline". I'm talking about 185th for CT Swift and Metro Rapid Ride and about 145th for the North Shore Tri-cities buses. Adding lanes will not greatly reduce the intersection delays. The 145th corridor study was based on 7

buses/hour and the new Metro long range plan adds 5 more buses per hour in the east corridor.

Voting down the current rezone and trying another rezone around 165 around Crest is the right long term choice. 5th Avenue between 145th and 155th is being designated an arterial, a bus corridor, a pedestrian and bikeway as well as a local street for density. Strangely we don't need intermediate traffic signals for crosswalks and turns until we add the local streets for density requirement. In terms of business development 165th and 5th already has a historical business center, area density and a school and getting the density out of the immediate area of the station is better operationally.

Both stations at 185th and 145th have the same rezone infrastructure, the goal of the council is density around the station, taking R6 and growing up to 140 foot density. There is a mindset that the single lot owner needs to decide their own destiny while the residential roads don't make up a consistent enough grid to offer rear entry density on the arterials (5th, Meridian, 145th and 185th). Density will be a force multiplier inserting traffic into the arterial stream from driveways and unsignalled side roads. Many of the turns will be across opposing traffic at uncontrolled intersections. The residential streets don't have sufficient setbacks to offer parking, drop offs, deliveries or center turn lanes and the Council is zoning these areas with no actual facts to the existing residential street corridors.

Modelling traffic for the rezone has dumped traffic on 155th which is supposed to be the non-motorized route with a V/C of nearly 2. Nobody seems to care that the V/C that the 185th area stayed under 1, while 145th stays consistently well above 1. Walkable community in the station area with traffic predicted by the intersections at 155th and 5th and 145th and 5th and 155th and 15th hardly leaves buffer space for 48 buses an hour and the impact of the non-studied new intersection at 148th, while the study mistakenly studied the northern on-ramp as a signalized turn across opposing traffic.

The rezone areas are mainly R6 in the current configuration, King County zoning allowed reduced road width for developments that had garages and the setbacks will create modern density along minimal setbacks, especially with the current demands for sidewalks, bikeways and curbs. Most of the rezone areas will not have center turn lanes or parking lanes for temporary stops or parking. Modern city efforts to reduce lane widths will have traffic changing lanes and passing between narrow parking lanes and narrow street lanes.

We care about walkability and the city still demands quick vehicular access. Mayor Roberts has an amendment promoting sidewalks and other non-motorized solutions for 5th, but nothing about traffic signals and crosswalks. We have same issue up at 185th. True walkability means crossing the street more frequently than the half mile, a single road segment cannot prioritize vehicular arterial with pedestrian walkability. We tried it on the 145th Corridor and excluded bikes from some segments and prioritized vehicles at the interchange making pedestrians second class citizens exactly where walkability is most important.

Leadership includes an audit/compliance level that the information collected and processed by staff represents the whole truth. A council that starts with a beginning plan and follows through without consideration of new information is bound to bust their budget and cause more problems in the future. A member of the Planning Commission addressed the Council recently stroking the Council to stay the course. A respected member of the business community, who didn't have the full information of what I have presented to the city, challenged the Council to stay the course. Affordable housing advocates recommend growth at any cost, not realizing what it means to Shoreline traffic and bus service. The city is considering stopping further expenditures on a new maintenance yard, I propose we also think seriously about the rezones. Keep the business districts at 185th and Aurora and 145th and 15th as rezones and repurpose the Shoreline Place CRA and North City rezone. The rest of the station areas have serious issues.

Dave Lange

Shoreline