

MEMORANDUM

DATE: April 11, 2022

TO: Nova Heaton
City of Arlington

FROM: Mike Read, PE
TENW

SUBJECT: Transportation Consistency Analysis
Mura Cascade ELP
TENW Project No. 2022-088

This memorandum documents a transportation consistency analysis of the proposed *Mura Cascade ELP* project within the Arlington Manufacturing and Industrial Center Planned Action EIS in Arlington, WA. The study includes a project description, trip generation estimate, and a comparison to the land/traffic analysis completed for the FEIS (dated January 2021), and a trip distribution/proportional share evaluation.

Project Description

The proposed *Mura Cascade ELP* project site is located at 19927 67th Avenue NE in Arlington, WA, as shown in the vicinity map ([see Attachment A](#)). Within the approximate 15.5-acre site, up to 118,650 square feet of new manufacturing/processing buildings space is proposed. This would include a plastics recycling receiving and processing building, plastic storage, and an administration building (a conceptual site plan is provided in [Attachment B](#)). The site would operate 24 hours a day, with three separate shifts of up to 70 employees. Current shift loads include:

- 6 AM - 2 PM – 26 employees
- 2 PM - 10 PM – 25 employees
- 10 PM - 6 AM – 18 employees

In addition to employee trips, trucks delivering plastic feedstock which would operate Monday through noon Saturday, and the product retrieval trucks of recycled plastic will be picking up product on a 24-hour basis as follows:

- Haul trucks = 3 per hour (operating 6 AM – 4 PM Monday - Friday)
- Tank trucks of finished plastic material = 1 per hour (operating 24x7)

Project Trip Generation

The trip generation estimates for the proposed *Mura Cascade ELP* project were based on the anticipated activity levels expected by the owner/operator. These estimates include daily trip generation for employees and truck activity (including both haul and tank trucks). The trip generation estimates are based on typical weekday operations and based on the following information:

- Up to 70 employees daily with shift periods and total employees noted above

- 30 total haul truck trips daily. Haul truck trips are anticipated to occur three (3) per hour from 6:00 AM to 4:00 PM weekdays.
- 24 total tank truck trips daily. Tank truck trips are anticipated to occur one (1) per hour operation 24 hours a day.

The resulting weekday daily, AM, and PM peak hour trip generation associated with buildout of the proposed project is summarized in **Table 1**. As the scheduled shifts of the project would not coincide with peak hours of adjacent street traffic (i.e., 7-9 AM and 4-6 PM were the peak periods documented in the Arlington MIC Planned Action EIS), limited traffic impacts would be generated by the project during these peak hours.

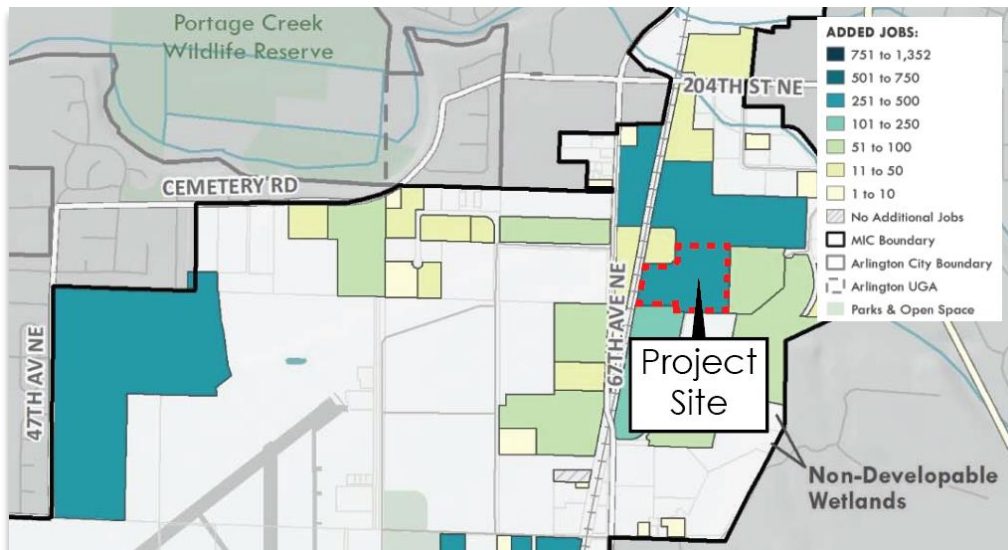
Table 1
Mura Cascade ELP – Trip Generation Summary

Time Period	Trips Generated		
	In	Out	Total
Weekday Daily	123	123	246
Weekday AM Peak Hour	4	4	8
Weekday PM Peak Hour	1	1	2

As shown in **Table 1**, the proposed *Mura Cascade ELP* project is estimated to generate 246 weekday trips per day, with 8 trips occurring during the weekday AM peak hour (4 entering, 4 exiting) and 2 trips occurring during the weekday PM peak hour (1 entering, 1 exiting). Detailed trip generation calculations separating each of the trip types are included in **Attachment C**.

Arlington Manufacturing and Industrial Center Planned Action EIS

The Arlington MIC Planned Action EIS study area includes parcels in both Arlington and Marysville. The Arlington portion of this study includes approximately 2,291 acres surrounding and including the Arlington Municipal Airport (AWO). The proposed *Mura Cascade ELP* project is located in the northeast corner of the study area as shown below:



As documented in the FEIS, the preferred alternative included 8,844 jobs for the entire study area. For the zone shown above, the FEIS assumed 251-500 new jobs. As documented previously in the project description and trip generation sections of this report, the proposed *Mura Cascade ELP* project is anticipated to include approximately 70 new employees, representing a range of between 14 and 28 percent of the total employment within this zone.

Proportional Share Analysis and Mitigation Fair Shares

The distribution of project-generated trips by the proposed *Mura Cascade ELP* project was based on the CIC General Regional Trip Distribution as documented in the FEIS. The peak hour project-generated trips were generally distributed to the adjacent street system as summarized in **Table 2** below.

Table 2
Peak Hour Project Trip Distribution

Route (Direction)	Distribution
I-5 (north)	3%
I-5 (south)	15%
67 th Ave NE (north)	17%
67 th Ave NE (south)	60%
SR 9 (south)	5%
TOTAL	100%

The proposed *Mura Cascade ELP* project is estimated to generate 2 new trips during the weekday PM peak hour of adjacent street traffic (1 entering, 1 exiting), as described earlier in this report, consistent with the periods evaluated in the EIS. Based on the trip distribution patterns shown above in **Table 2**, the project-generated trips during the weekday PM peak hour (1 entering, 1 exiting) are anticipated to travel to and from the south on 67th Avenue NE south of 172nd Avenue NE. These trips reflect both trips that remain local as well as those traveling to and from the south towards Marysville as documented in the FEIS. Based on the anticipated project trip distribution on 67th Avenue NE and the future weekday PM peak hour traffic volumes documented in the FEIS, the proportional share of future weekday PM peak hour traffic volumes that are attributed to the *Mura Cascade ELP* project at the impacted study intersections (2 out of 12) are shown below:

1. 67th Ave NE/188th Street NE = 0.12% (2 trips / 1,652 TEV)
9. 67th Ave NE/172nd Street NE = 0.07% (2 trips / 2,897 TEV)

Note that based on the low weekday PM peak hour traffic anticipated with the proposed project and the project trip distribution patterns described previously, the other 10 study intersections along 172nd Street NE are not expected to be impacted by the proposed *Mura Cascade ELP* project.

Conclusions

The transportation consistency analysis was prepared for the proposed *Mura Cascade ELP*, a 15.5-acre site within the Manufacturing and Industrial Center Planned Action EIS in Arlington, WA. As part of this site specific review of the development, the following conclusions were determined:

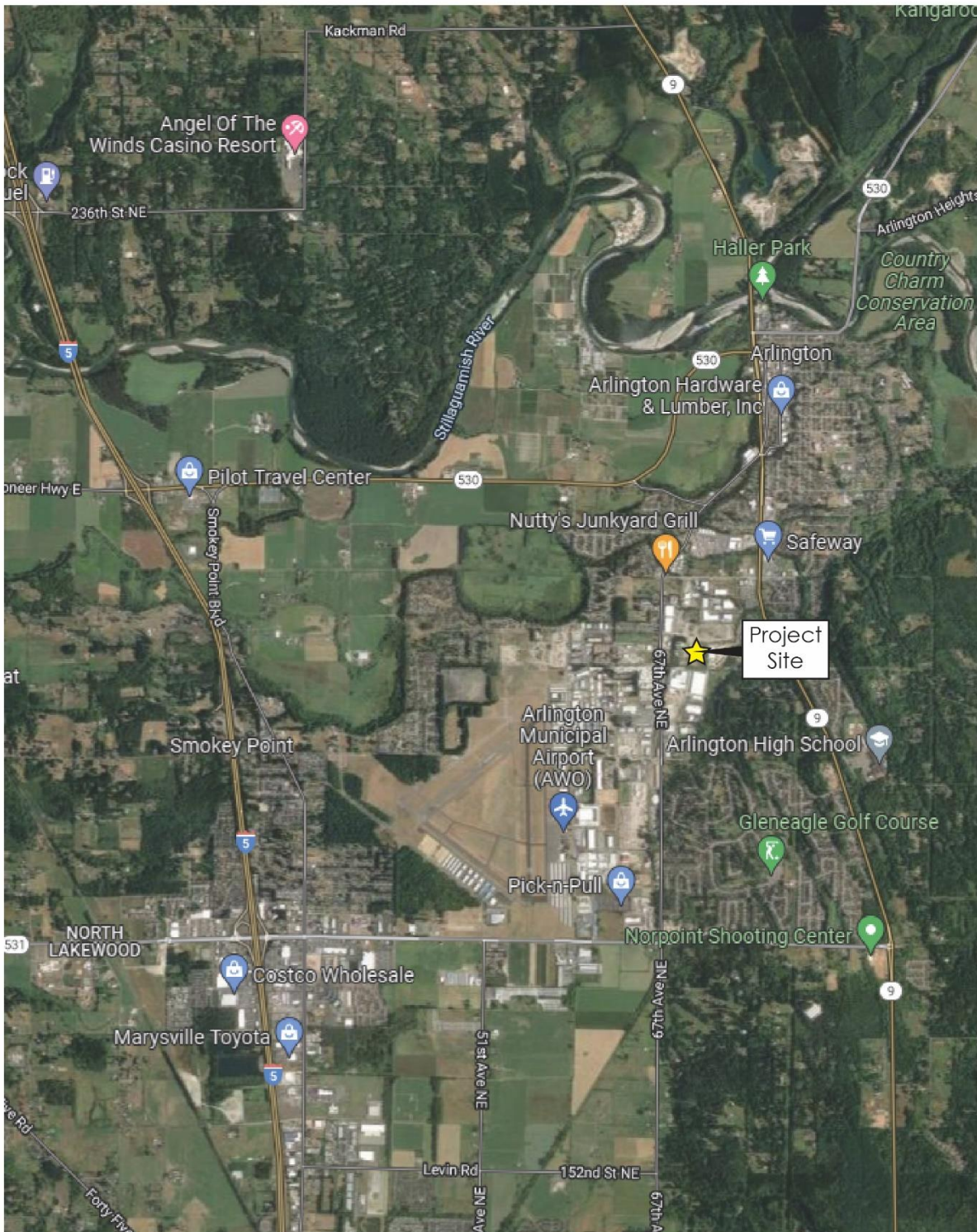
- Vehicular site access for the project is proposed via a driveway onto an existing private roadway that access 67th Avenue NE.
- The assumed new employment growth within the zone of the proposed *Mura Cascade ELP* project evaluated between 251 and 500 employees. The proposed total of up to 70 employees over 3 different work shifts would represent between 14 and 28 percent of the planned growth within this zone. The net increase of site-generated trips during the AM and PM peak hours evaluated in the EIS is 8 new AM peak hour and 2 new PM peak hour trips.
- The anticipated trip distribution patterns for traffic generated by the proposed *Mura Cascade ELP* project were assumed to be consistent with the CIC General Regional Trip Distribution as documented in the FEIS.
- Based on the anticipated project trip distribution on 67th Avenue NE and the future weekday PM peak hour traffic volumes documented in the FEIS, the proportional share of future weekday PM peak hour traffic volumes that are attributed to the *Mura Cascade ELP* project at the impacted study intersections (2 out of 12) are shown below:
 1. 67th Ave NE/188th Street NE = 0.12% (2 trips / 1,652 TEV)
 10. 67th Ave NE/172nd Street NE = 0.07% (2 trips / 2,897 TEV)

Based on the low weekday PM peak hour traffic anticipated with the proposed project and the project trip distribution patterns described previously, the other 10 study intersections along 172nd Street NE are not expected to be impacted by the proposed *Mura Cascade ELP* project.

Based on these conclusions, it was determined that no further traffic analysis of the *Mura Cascade ELP* project is warranted, and the LOS findings and proposed transportation improvement recommendations identified in the 2021 EIS remains valid.

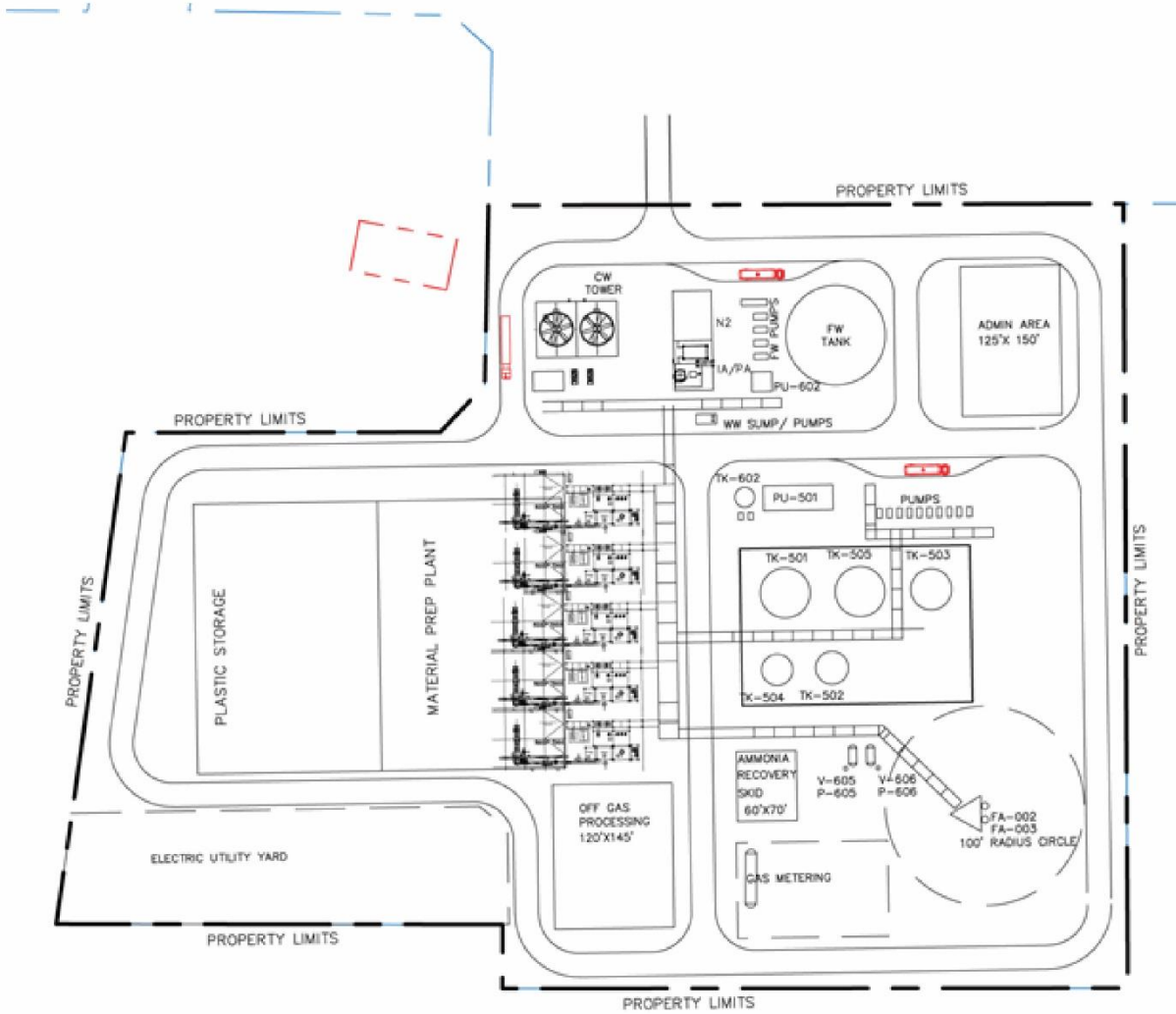
If you have any questions regarding the information presented in this memo, please contact me at mikeread@tenw.com or (206) 999-4145.

Attachments



Attachment A: Project Site Vicinity





Attachment B: Preliminary Site Plan



ATTACHMENT C

Trip Generation Calculations

Mura Cascade ELP (Arlington)

Building Area = 118,650 GFA
 Staff = 69 Employees

Weekday Trip Generation Summary

Time Period	Employee Vehicle Trips		Haul Trucks		Tank Trucks		Total Trips			Hourly Totals		
	In	Out	In	Out	In	Out	In	Out	Total	In	Out	Total
12:00 - 12:30 AM	0	0	0	0	1	0	1	0	1	1	1	2
12:30 - 1:00 AM	0	0	0	0	0	1	0	1	1	1	1	2
1:00 - 1:30 AM	0	0	0	0	1	0	1	0	1	1	1	2
1:30 - 2:00 AM	0	0	0	0	0	1	0	1	1	1	1	2
2:00 - 2:30 AM	0	0	0	0	1	0	1	0	1	1	1	2
2:30 - 3:00 AM	0	0	0	0	0	1	0	1	1	1	1	2
3:00 - 3:30 AM	0	0	0	0	1	0	1	0	1	1	1	2
3:30 - 4:00 AM	0	0	0	0	0	1	0	1	1	1	1	2
4:00 - 4:30 AM	0	0	0	0	1	0	1	0	1	1	1	2
4:30 - 5:00 AM	0	0	0	0	0	1	0	1	1	1	1	2
5:00 - 5:30 AM	0	0	0	0	1	0	1	0	1	27	1	28
5:30 - 6:00 AM	26	0	0	0	0	1	26	1	27	30	19	49
6:00 - 6:30 AM	0	18	3	0	1	0	4	18	22	4	22	26
6:30 - 7:00 AM	0	0	0	3	0	1	0	4	4	4	4	8
7:00 - 7:30 AM	0	0	3	0	1	0	4	0	4	4	4	8
7:30 - 8:00 AM	0	0	0	3	0	1	0	4	4	4	4	8
8:00 - 8:30 AM	0	0	3	0	1	0	4	0	4	4	4	8
8:30 - 9:00 AM	0	0	0	3	0	1	0	4	4	4	4	8
9:00 - 9:30 AM	0	0	3	0	1	0	4	0	4	4	4	8
9:30 - 10:00 AM	0	0	0	3	0	1	0	4	4	4	4	8
10:00 - 10:30 AM	0	0	3	0	1	0	4	0	4	4	4	8
10:30 - 11:00 AM	0	0	0	3	0	1	0	4	4	4	4	8
11:00 - 11:30 AM	0	0	3	0	1	0	4	0	4	4	4	8
11:30 AM - 12:00 PM	0	0	0	3	0	1	0	4	4	4	4	8
12:00 - 12:30 PM	0	0	3	0	1	0	4	0	4	4	4	8
12:30 - 1:00 PM	0	0	0	3	0	1	0	4	4	4	4	8
1:00 - 1:30 PM	0	0	3	0	1	0	4	0	4	29	4	33
1:30 - 2:00 PM	25	0	0	3	0	1	25	4	29	29	30	59
2:00 - 2:30 PM	0	26	3	0	1	0	4	26	30	4	30	34
2:30 - 3:00 PM	0	0	0	3	0	1	0	4	4	4	4	8
3:00 - 3:30 PM	0	0	3	0	1	0	4	0	4	4	4	8
3:30 - 4:00 PM	0	0	0	3	0	1	0	4	4	1	4	5
4:00 - 4:30 PM	0	0	0	0	1	0	1	0	1	1	1	2
4:30 - 5:00 PM	0	0	0	0	0	1	0	1	1	1	1	2
5:00 - 5:30 PM	0	0	0	0	1	0	1	0	1	1	1	2
5:30 - 6:00 PM	0	0	0	0	0	1	0	1	1	1	1	2
6:00 - 6:30 PM	0	0	0	0	1	0	1	0	1	1	1	2
6:30 - 7:00 PM	0	0	0	0	0	1	0	1	1	1	1	2
7:00 - 7:30 PM	0	0	0	0	1	0	1	0	1	1	1	2
7:30 - 8:00 PM	0	0	0	0	0	1	0	1	1	1	1	2
8:00 - 8:30 PM	0	0	0	0	1	0	1	0	1	1	1	2
8:30 - 9:00 PM	0	0	0	0	0	1	0	1	1	1	1	2
9:00 - 9:30 PM	0	0	0	0	1	0	1	0	1	19	1	20
9:30 - 10:00 PM	18	0	0	0	0	1	18	1	19	19	26	45
10:00 - 10:30 PM	0	25	0	0	1	0	1	25	26	1	26	27
10:30 - 11:00 PM	0	0	0	0	0	1	0	1	1	1	1	2
11:00 - 11:30 PM	0	0	0	0	1	0	1	0	1	1	1	2
11:30 PM - 12:00 AM	0	0	0	0	0	1	0	1	1			
TOTAL TRIPS	69	69	30	30	24	24	123	123	246			

Weekday Trip Generation Summary

	In	Out	Total
Daily Trip Generation	123	123	246
AM Peak Hour 7:00 - 7:30 AM	4	4	8
PM Peak Hour 4:00 - 4:30 PM	1	1	2