

February 28, 2021

Melissa Watkins
Amazon.Com Services, Inc.
300 Boren Avenue N
Seattle, WA

**Subject: Pavement Maintenance and Traffic Impact Contributions -
Application 201908318 - 2791 West Winton Avenue**

Dear Melissa:

The City's Public Works & Utilities Department has completed a review of your project application and evaluation of the proposed project's impacts on the City's roadways and traffic. Based on this evaluation, the City requires a total amount of \$6,160,000 in deposits and contributions for traffic-related improvements and maintenance.

The total amount is comprised of the following:

- A contribution of \$4,605,000 for pavement and maintenance of City roadway segments; and
- A deposit of \$1,555,000 to address traffic operational deficiencies caused by project trips and as identified in the project's Traffic Impact Analysis, including a Local Transportation Assessment contribution of \$550,000 towards construction of sidewalks and other improvements identified by the City's adopted Bicycle and Pedestrian Master Plan.
- An annual contribution for future roadways maintenance, starting at \$307,000 beginning in 2022, and lasting as long as the CUP is in effect.

Pavement and Roadway Maintenance

The Preliminary Concept Review for this project was introduced at the October 7, 2019 meeting of the City's Council Economic Development Committee. At that time, the estimated vehicle trips were 700 to 800 per day, with the number of trips doubling during the holidays. Committee members raised serious concerns about the traffic and road maintenance impacts, given that the proposed development will not generate sales tax or mitigation fees. The City's Transportation Manager indicated that the City was in discussions with Amazon and Black Creek regarding partnering to improve intersections

and maintain streets. Subsequent to the meeting, staff continued to evaluate the impacts and associated costs to the City.

Current estimates of trips generated per day by the project is 4,151 daily trips and 695 pm peak hour trips comprised of a mix of automobiles, line-haul trucks or similar heavy vehicles and delivery vehicles. This estimate, based on the Transportation Analysis performed by Hexagon Transportation Consultants, Inc. and dated January 25, 2021, is more than five times the original estimate, even without considering the peak holiday rush. Trip routes are expected to mainly utilize sections of W. Winton Avenue, Clawiter Road, Cabot Blvd., Depot Road and Hesperian Blvd. This degree of traffic activity will contribute to an unusually rapid decline of the structural integrity and substantially reduce the expected life of the pavement on these City roadway segments.

Based on this information, the City has calculated a contribution of \$4,605,000 for pavement and maintenance on roadway segments that will be impacted by the project. This amount was determined using cost estimates from recent pavement restoration projects, industry trends and industry-standard costs associated with roadway paving for, along with projected average daily traffic for each of the roadway segments. Note that this payment is in addition to the \$1,555,000 for transportation improvements and sidewalk deposits outlined in the Project Conditions of Approval Timeline and discussed later in this letter.

Table 1 provides the estimated Average Daily Traffic on each of the roadway segments where the project trips are expected and the total pavement reconstruction cost per segment.

Table 1 - Total Estimated Paving and Maintenance Costs

Segment	From	To	Avg Daily Traffic ⁽¹⁾	Pavement Cost
Winton	Project	Clawiter	10,580	\$10,157,108
Winton	Clawiter	Hesperian	22,750	\$569,212
Winton	Hesperian	I-880 Interchange	22,550	\$1,905,660
Clawiter	Winton	Depot	9,195	\$2,334,408
Clawiter	Depot	Breakwater	8,590	\$918,400
Cabot	Winton	Depot	7,009	\$1,481,568
Depot	End	Industrial	11,317	\$2,323,928
Hesperian	Winton	Tennyson	25,500	\$5,091,120
			Total	\$24,781,404

(1) Average Daily Traffic totals are based on traffic counts on City file, or in cases where counts were not readily available, estimated using PM peak hour volumes from the Project Traffic Impact Analysis - Local Transportation Assessment.

The project contribution of \$4,605,000 toward pavement and roadway maintenance was calculated using the project's estimated daily trips as a percentage of the average daily traffic for each roadway segment where the project trips are expected. This percentage was applied to the total pavement cost per segment to determine the project contribution.

Table 2 illustrates the project trips by roadway segment, project trips as a percentage of average daily traffic and the project contribution amount by segment.

Table 2 - Project Contribution toward Paving and Maintenance

Segment	From	To	Project Trips (Daily)	Project Trips (% of Avg Daily Traffic)	Project Contribution (\$)
Winton	Project	Clawiter	3,949	37.3	\$3,791,155
Winton	Clawiter	Hesperian	3,546	15.6	\$88,722
Winton	Hesperian	I-880 Interchange	2,032	9.0	\$171,721
Clawiter	Winton	Depot	403	4.4	\$102,313
Clawiter	Depot	Breakwater	605	7.0	\$64,684
Cabot	Winton	Depot	202	2.9	\$42,699
Depot	End	Industrial	202	1.8	\$41,480
Hesperian	Winton	Tennyson	1,514	5.9	\$302,273
Total Project Contribution					\$4,605,047

Annual Payment for Future Roadways Maintenance

As discussed during the October 7, 2019 CEDC meeting, Amazon.com Services will also be required to enter into an agreement with the City to pay Amazon’s share of future maintenance of City streets impacted by the project traffic, as listed in Table 2. The payment shall be annual, beginning in 2022, at an amount of \$307,000 (the equivalent of 1/15th of the total share of the current pavement improvement cost, assuming a 15-year roadway pavement useful life), and continuing as long as the facility is in operation. This annual amount will be escalated each year by the Engineering News Record Construction Cost Index (ENR-CCI), beginning in 2022.

Transportation Improvements

The City has calculated a deposit of \$1,555,000 for transportation improvements to address traffic operational deficiencies caused by project trips, as identified in the project’s Traffic Impact Analysis-Local Transportation Assessment, and for improvements identified in the project vicinity by the City’s Bicycle and Pedestrian Master Plan. The \$1,555,000 deposit will be used for the following improvements:

- \$500,000 for installation of a traffic signal at the intersection of West Winton Avenue and Cabot Boulevard to address operational deficiencies caused by project peak hour trips. This amount was determined based on industry-standard costs and recent traffic signal installation costs.
- \$500,000 for installation of a traffic signal or similar interchange improvement projects at the Clawiter Road/Eden Landing Road/SR-92 interchange to address operational deficiencies caused by project peak hour trips. This amount was determined based on industry-standard costs and cost estimate provided by the Alameda County Transportation Commission for a traffic signal at a ramp terminus intersection.
- \$550,000 for a sidewalk extension along West Winton Avenue connecting the project area to the Bay Trail entrance or similar sidewalk improvements in the project vicinity, as identified in the City's Bicycle and Pedestrian Master Plan and the project's Traffic Impact Analysis-Local Transportation Assessment. This amount was determined based on industry standard costs for a sidewalk extension and a cost estimate for environmental review work associated with the sidewalk extension at this location.
- \$5,000 for re-striping and extending the northbound left turn lane at the intersection of West Winton Avenue and Clawiter Road. This amount was determined based on cost estimates for re-striping and recent similar work conducted by the City.

The deposit related to transportation improvement will be due and payable to the City prior to issuance of the project's Conditional Use Permit.

In summary, the City has calculated a total payment of \$6,160,000, with \$4,605,000 in contributions toward pavement maintenance, an annual payment beginning in 2022 at a starting rate of \$307,000, and \$1,555,000 in deposits for local traffic operational and sidewalk improvements. These amounts and payment methods will be included as Transportation Conditions of Approval for the Project's Conditional Use Permit application.

March 9, 2021

Melissa Watkins
Amazon.Com Services, Inc.
300 Boren Avenue N
Seattle, WA

Subject: Re: Trip Generation, Pavement Maintenance and Traffic Impact Contributions - Application 201908318 - 2791 West Winton Avenue

Dear Melissa:

The City's Public Works & Utilities Department has completed a review of the *White Paper of a California Trip Generation Study for Delivery Stations* ("White Paper") and the *Project Description* that you submitted as a proposed alternative to the trip generation rates previously approved and used in the Project's Traffic Impact Analysis ("TIA").

For all development projects, the City uses rates developed by the Institute of Transportation Engineers ("ITE") and published in the latest version of ITE's *Trip Generation Manual* for trip generation and TIA purposes. The published ITE rates are used as they are the accepted industry standard and based on independently verified real-world surveys and data collection efforts. As such, published ITE rates are the most defensible source available for trip generation purposes. Published ITE rates are also used in accordance with the City's adopted *Traffic Impact Analysis Guidelines*, which was communicated to the Applicant team at the time of initial scoping of the TIA.

The TIA, prepared by Hexagon Transportation Consultants, Inc., used ITE rates associated with a High-Cube Fulfillment Center Warehouse (ITE Land Use Code 155). This land use was selected as it was directly applicable to the Project and its proposed e-commerce distribution use. Per ITE's description for the High-Cube Fulfillment Center, and as noted on Page 129 of the ITE *Trip Generation Manual, 10th Edition Volume 2*: "... High-cube fulfillment center warehouses **include** warehouses characterized by a significant storage function **and direct distribution of ecommerce product to end users.**"

For Industrial-related land uses, ITE rates are applied to Gross Floor Area ("GFA") of a building. According to the ITE *Trip Generation Manual, 10th Edition*, by definition, GFA includes "the sum of the area of each floor level of a building (expressed in square

feet)..., that are within the principal outside faces of exterior walls..." and includes: "... all areas that have floor surfaces with clear standing head room (6 ft 6 in. minimum) regardless of their use."

As such, ITE rates, by definition, are applied to entire building square footage and already take into account all areas within a building and their associated trip generation, including areas within buildings that may be deemed "non-operational" and may not, on their own, generate trips. These areas which are already taken into account by ITE rates, include hallways, maintenance areas, dining areas or break rooms, restrooms, loading areas or other similar facilities.

When the appropriate ITE rate is applied to this project (a 507,500 square foot building), 4,151 daily trips are generated with 299 AM peak hour trips and 695 PM peak hour trips. This rate is similar to the trip generation for another Amazon facility in Alameda County which currently serves Hayward customers. That facility, which is located in Fremont, is 366,617 square feet and was determined by the City of Fremont to generate 3,794 daily trips. The resulting trip generation for this Project also accounts for potential future growth, including growth as a result of general retail expansion and growth associated with more efficient processing due to automation. Furthermore, the ITE rate is lower than the rate published in the White Paper for Amazon-specific sites, which would generate 4,902 daily trips when applied to GFA (consistent with ITE methodology).

In conclusion, published ITE rates from the latest version of ITE's *Trip Generation Manual* are the industry standard for trip generation associated with analysis for Traffic Impact Analysis. They are the most defensible source available as the rates are based on independently verified data and take into consideration all uses within a building's exterior walls. As such, it has been determined that the ITE trip generation rates used in the Project's TIA are consistent with industry-standards, consistent with similar projects in other Alameda County jurisdictions, and consistent the City of Hayward's adopted policies and guidelines.



March 19,2021

Melissa Watkins
Amazon.Com Services, Inc.
300 Boren Avenue N
Seattle, WA

**Subject: Re: Pavement Maintenance and Traffic Impact Contributions -
Application 201908318 - 2791 West Winton Avenue**

Dear Melissa:

Based on dicussion between the City's Public Works & Utilities Department and Amazon, we have revised the previous letter that was sent on February 28, 2021 as follows:

The City has completed a review of your project application and evaluation of the proposed project's impacts on the City's roadways and traffic. Based on this evaluation, the City requires a total amount of \$3,978,291 in deposits and contributions for traffic-related improvements and maintenance.

The total amount is comprised of the following:

- A contribution of \$2,423,291 for pavement and maintenance of City roadway segments; and
- A deposit of \$1,555,000 to address traffic operational deficiencies caused by project trips and as identified in the project's Traffic Impact Analysis, including a Local Transportation Assessment contribution of \$550,000 towards construction of sidewalks and other improvements identified by the City's adopted Bicycle and Pedestrian Master Plan.
- An annual contribution for future roadways maintenance, starting at \$161,553 beginning in 2022, and lasting as long as the CUP is in effect.

Pavement and Roadway Maintenance

The Preliminary Concept Review for this project was introduced at the October 7, 2019 meeting of the City's Council Economic Development Committee. At that time, the estimated vehicle trips were 700 to 800 per day, with the number of trips doubling during the holidays. Committee members raised serious concerns about the traffic and



road maintenance impacts, given that the proposed development will not generate sales tax or mitigation fees. The City’s Transportation Manager indicated that the City was in discussions with Amazon and Black Creek regarding partnering to improve intersections and maintain streets. Subsequent to the meeting, staff continued to evaluate the impacts and associated costs to the City.

Current estimates of trips generated per day by the project is 4,151 daily trips and 695 pm peak hour trips comprised of a mix of automobiles, line-haul trucks or similar heavy vehicles and delivery vehicles. This estimate, based on the Transportation Analysis performed by Hexagon Transportation Consultants, Inc. and dated January 25, 2021, is more than five times the original estimate, even without considering the peak holiday rush. Trip routes are expected to mainly utilize sections of W. Winton Avenue, Clawiter Road, Cabot Blvd., Depot Road and Hesperian Blvd. This degree of traffic activity will contribute to an unusually rapid decline of the structural integrity and substantially reduce the expected life of the pavement on these City roadway segments.

Based on this information, the City has calculated a contribution of \$2,423,291 for pavement and maintenance on roadway segments that will be impacted by the project. This amount was determined using cost estimates from recent pavement restoration projects, industry trends and industry-standard costs associated with roadway paving for, along with projected average daily traffic for each of the roadway segments. Note that this payment is in addition to the \$1,555,000 for transportation improvements and sidewalk deposits outlined in the Project Conditions of Approval Timeline and discussed later in this letter.

Table 1 provides the estimated Average Daily Traffic on each of the roadway segments where the project trips are expected and the total pavement reconstruction cost per segment.

Table 1 - Total Estimated Paving and Maintenance Costs

Segment	From	To	Avg Daily Traffic ⁽¹⁾	Pavement Cost
Winton	Project	Clawiter	10,580	\$5,124,402.69
Winton	Clawiter	Hesperian	22,750	\$1,694,400.64
Winton	Hesperian	I-880 Interchange	22,550	\$3,338,304.28
Clawiter	Winton	Depot	9,195	\$2,334,408
Clawiter	Depot	Breakwater	8,590	\$918,400
Cabot	Winton	Depot	7,009	\$1,481,568
Depot	End	Industrial	11,317	\$2,323,928
Hesperian	Winton	Tennyson	25,500	\$5,091,120
Total				\$22,306,532

- (1) Average Daily Traffic totals are based on traffic counts on City file, or in cases where counts were not readily available, estimated using PM peak hour volumes from the Project Traffic Impact Analysis - Local Transportation Assessment.

The project contribution of \$2,423,291 toward pavement and roadway maintenance was calculated using the project's estimated daily trips and applied to the total pavement cost per segment to determine the project contribution.

Table 2 illustrates the project trips by roadway segment, project trips and the project contribution amount by segment.

Table 2 - Project Contribution toward Paving and Maintenance

Segment	From	To	Project Trips (Daily)	Project Trips (%)	Project Contribution (\$)
Winton	Project	Clawiter	3,949	27.2	\$1,392,819
Winton	Clawiter	Hesperian	3,546	13.5	\$228,489
Winton	Hesperian	I-880 Interchange	2,032	8.3	\$275,951
Clawiter	Winton	Depot	403	4.2	\$98,017
Clawiter	Depot	Breakwater	605	6.6	\$60,428
Cabot	Winton	Depot	202	2.8	\$41,503
Depot	End	Industrial	202	1.8	\$40,753
Hesperian	Winton	Tennyson	1,514	5.6	\$285,332
Total Project Contribution					\$2,423,291

Annual Payment for Future Roadways Maintenance

As discussed during the October 7, 2019 CEDC meeting, Amazon.com Services will also be required to enter into an agreement with the City to pay Amazon's share of future maintenance of City streets impacted by the project traffic, as listed in Table 2. The payment shall be annual, beginning in 2022, at an amount of \$161,553 (the equivalent of 1/15th of the total share of the current pavement improvement cost, assuming a 15-year roadway pavement useful life), and continuing as long as the facility is in operation. This annual amount will be escalated each year by the Engineering News Record Construction Cost Index (ENR-CCI), beginning in 2022.

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The deposit related to transportation improvement will be due and payable to the City prior to issuance of the project's Conditional Use Permit.

In summary, the City has calculated a total payment of \$3,978,291, with \$2,423,291 in contributions toward pavement maintenance, an annual payment beginning in 2022 at a starting rate of \$161,553, and \$1,555,000 in deposits for local traffic operational and sidewalk improvements. These amounts and payment methods will be included as Transportation Conditions of Approval for the Project's Conditional Use Permit application.

Street	From	To	Improvement	Estimated Total Cost	Applicant Estimated Cor	Applicant Estimate Cost
WINTON	END	CLAWITER	PAVEMENT	\$5,124,402.69	27.2%	\$1,392,819
WINTON	CLAWITER	HESPERIAN	PAVEMENT	\$1,694,400.64	13.5%	\$228,489
WINTON	HESPERIAN	SANTA CLARA	PAVEMENT	\$3,338,304.28	8.3%	\$275,951
CLAWITER	WINTON	DEPOT	PAVEMENT	\$2,334,408.00	4.2%	\$98,017
CLAWITER	DEPOT	BREAKWATER	PAVEMENT	\$918,400.00	6.6%	\$60,428
CABOT	WINTON	DEPOT	PAVEMENT	\$1,481,568	2.8%	\$41,503
DEPOT	END	INDUSTRIAL	PAVEMENT	\$2,323,928	1.8%	\$40,753
HESPERIAN	WINTON	TENNYSON	PAVEMENT	\$5,091,120.00	5.6%	\$285,332
WINTON	CABOT	CABOT	SIGNAL	\$500,000		\$500,000
WINTON	CLAWITER	CLAWITER	RE-STRIPE/GENERAL	\$5,000		\$5,000
CLAWITER	EDEN LANDING	SR92	INTERCHANGE	\$500,000		\$500,000
WINTON	WINTON	DEPOT	SIDEWALK EXTENSION	\$550,000		\$550,000
Subtotal (Pavement)				\$22,306,532		\$2,423,291
Subtotal (Traffic Operations <i>DEPOSIT</i> *)				\$1,555,000		\$1,555,000
TOTAL				\$23,311,531.61		\$3,978,291

* - Deposit subtotal is partially refundable to Applicant if other development projects are found to require contributions to same improvement

Street	From	To	Est Project Daily Trips	Estimated ADT	Applicant Est % of ADT
WINTON	END	CLAWITER	3949	10,580	27.2%
WINTON	CLAWITER	HESPERIAN	3546	22,750	13.5%
WINTON	HESPERIAN	SANTA CLARA	2032	22,550	8.3%
CLAWITER	WINTON	DEPOT	403	9,195	4.2%
CLAWITER	DEPOT	BREAKWATER	605	8,590	6.6%
CABOT	WINTON	DEPOT	202	7,009	2.8%
DEPOT	END	INDUSTRIAL	202	11,317	1.8%
HESPERIAN	WINTON	TENNYSON	1514	25,500	5.6%