



## Attachment A

### SCOPE OF WORK

#### **North Bayshore District Monitoring and Near-Term Growth Assessment in Mountain View, California (June 9, 2020)**

## ANALYSIS APPROACH

City staff will use this North Bayshore District Monitoring and Near-Term Growth Assessment to evaluate how North Bayshore development is conforming to the North Bayshore Precise Plan gateway trip targets. This scope of work is to conduct, analyze and report the results of the Fall 2020 and Spring 2021 North Bayshore District Monitoring and Near-Term Growth Assessment. The Fall 2020 gateway counts and mode share observations will be reported in a technical memorandum, while the Spring 2021 counts and mode share observations will be reported in a technical report with a report chapter titled Near-Term Growth Assessment that describes planned developments in the near future, the estimated completion of the planned transportation improvements, and an estimate of the future trip demand from the near-term developments and their contribution to each gateway. Both the technical memorandum and technical report will be reported to City Council as part of the North Bayshore District monitoring of traffic congestion and land development.

## SCOPE OF WORK

### PHASE 1: FALL 2020 AND SPRING 2021 NORTH BAYSHORE DISTRICT MONITORING

The base scope of services for this phase of work will evaluate and present travel data at the North Bayshore gateways for the morning peak period (7:00 to 11:00 AM) and evening peak period (3:00 to 7:30 PM) for Fall 2020 and Spring 2021 conditions, using the data sources and collection techniques that have been used in previous monitoring efforts. Note that due to the COVID-19 pandemic and associated reductions in economic activity and vehicle travel, the traffic conditions that exist at the time of the Fall 2020 monitoring are likely to be substantially affected, thereby making it difficult to draw meaningful conclusions from any comparisons of the Fall 2020 data to the data from prior years. One option would be to forego the Fall 2020 monitoring and to resume the monitoring process in Spring 2021, when the economic and travel patterns may have adapted into a “new normal” situation. The budget for this phase of the scope has been divided so that the cost of the Fall 2020 monitoring can be separated from the cost for Spring 2021.

### **Task 1.1: Daily Count Observations**

With guidance from Fehr & Peers, a count vendor will collect daily roadway and shared-use path segment counts at the North Bayshore gateways; Santiago Villa; and the Shoreline at Mountain View Regional Park. This daily data will be collected for two consecutive weeks. The morning peak period (7:00 to 11:00 AM) and the evening peak period (3:00 to 7:30 PM) average for a typical mid-week day (e.g., Tuesday, Wednesday, or Thursday) will be reported. The North Bayshore gateway street locations include:

1. San Antonio Road between Bayshore Parkway and Casey Avenue
2. Bayshore Parkway between San Antonio Road and Garcia Avenue
3. Rengstorff Avenue between US 101 Northbound Ramps and Garcia Avenue-Charleston Road
4. Shoreline Boulevard between US 101 Northbound Ramps-La Avenida and Pear Avenue
5. La Avenida between Shoreline Boulevard and Inigo Way

The shared-use path locations include:

6. Permanente Creek Trail between Old Middlefield Way and Charleston Road
7. Stevens Creek Trail between Moffett Boulevard and La Avenida

Additional count locations for Santiago Village and the Shoreline at Mountain View Regional Park include:

8. Shoreline Boulevard north of North Road
9. Space Park Way at the entrance to Santiago Villa
10. Armand Avenue at the entrance to Santiago Villa

### **Task 1.2: Gateway Vehicle Classification Observations**

For one day at the North Bayshore Gateway locations 1 through 7 listed above vehicle classification counts will be collected by the count vendor for the inbound direction during the morning peak period and outbound direction during the evening peak period. The vehicle classification will include: single occupant vehicles, carpool vehicles by vehicle occupancy (1 person, 2 persons, 3 persons, and 4+ persons), transportation network company vehicles (e.g., Uber and Lyft) by vehicle occupancy (1 person, 2 persons, 3 persons, and 4+ persons), trucks, transit vehicles, bicyclists and pedestrians.

### **Task 1.3: Bus Occupancy Observations**

Bus occupancy of employer commuter shuttles and VTA buses will be observed at 17 bus stops for one day during the morning and evening peak periods. Some of the data will be collected from the appropriate agencies in spreadsheet format, while other data will be collected via in-person field observations. For all of

the in-person field observations, a local count vendor will collect the data. For VTA buses, staff will board the bus at bus stops and count the number of riders on board. For employer commuter shuttles, staff will be stationed at bus stops recording the bus license plate number, the type of bus and the number of persons boarding and alighting; this will be focused on inbound buses during the morning peak period and outbound buses during the evening peak period. Using this bus occupancy data, Fehr & Peers will determine the number of persons entering North Bayshore on buses during the morning peak period and exiting during the evening peak period.

#### **Task 1.4: Summary of Existing Travel Patterns**

The vehicle traffic counts, and vehicle classification data will be summarized in tables and figures to show vehicle travel patterns by time of day, and mode share and vehicle usage for the morning and evening peak periods. This information will describe the current usage of the three North Bayshore Gateways. The mode share data will be summarized for the inbound direction during the morning peak period and outbound direction during the evening peak period. The other performance measures will be summarized for both directions during the morning and evening peak periods.

#### **Task 1.5: Gateway Operations Observations**

Vehicle queues will increase under conditions where the gateway demand exceeds capacity. Peak period observations of vehicle queues will be observed at the Shoreline Boulevard and Rengstorff Boulevard gateways during the morning and evening peak periods for one day. Queue lengths, start time of queue formation, start time of queue dissipation, and the maximum queue length will be reported to help understand when the demand exceeds capacity at the observed locations, and the extent of the vehicle queue formed by unserved vehicles. Noting the extent of the queues, and times at which the queues begin to increase and decrease in length, will help describe the North Bayshore gateway operations throughout the morning and evening peak periods.

These queue observations will be conducted using 17 camera locations, recording the queues during the peak periods. Fehr & Peers' staff will then watch the recorded videos to determine queue extents and times at which the queues begin to increase and decrease in size. The cameras will be used to record the inbound and outbound queues for eight locations at the Rengstorff gateway and seven locations at the Shoreline gateway.

## **PHASE 2: NEAR-TERM GROWTH ASSESSMENT AND DOCUMENTATION**

#### **Task 2.1: Near-Term Growth Assessment by North Bayshore Gateways**

For the Spring 2020 monitoring, Fehr & Peers described the Near-Term Growth developments planned for North Bayshore, the estimated change in the gateway vehicle demand with occupancy of these new developments in the near future, and the estimated completion of the planned transportation improvements. As part of the Spring 2021 monitoring, Fehr & Peers will update this Near-Term Growth Assessment to include any new developments since the Spring 2020 monitoring. In addition, the Near-Term Growth demand

volumes by each gateway will be developed using distributions from published Site Specific Transportation Analysis reports and supplemented by the North Bayshore VISUM travel model. The Near-Term growth trip estimates will be reported by gateway.

### **Task 2.2: Spring 2021 North Bayshore District Monitoring and Near-Term Growth Assessment Documentation**

A North Bayshore District Monitoring and Near-Term Growth Assessment report will be prepared that summarizes the person and vehicle trips for each North Bayshore gateway, and person mode share during the morning peak period (7:00 to 11:00 AM) and the evening peak period (3:00 to 7:30 PM) for Spring 2021 (Fall 2020 counts and mode share will be summarized in the historical graphics and appendix). This report will also compare the gateway observations to several trip target options during the morning and evening peak periods. The Near-Term Growth Assessment will also be documented. The draft report will be submitted to the City staff for review and comment. Review comments will be incorporated into the final report and submitted to City staff. Our fee estimate includes 12 staff hours to respond to comments on the draft and prepare a final report. Responding to comments requiring additional technical analysis or requiring more than 12 staff hours will be conducted as an additional service.

**Deliverable:** *Draft and Final Report documenting the North Bayshore District Monitoring and Near-Term Growth Assessment report.*

### **Task 2.3: Fall 2020 Technical Memorandum Summary Deliverable**

The Fall 2020 monitoring will be documented using a brief technical memo format with tables and figures to present the Fall 2020 gateway volume and mode share monitoring results. Our fee estimate includes up to 8 staff hours to respond to comments on the draft and prepare a final memo. Responding to comments requiring additional technical analysis or requiring more than 8 staff hours will be conducted as an additional service.

**Deliverable:** *Draft and Final Memorandum documenting the Fall 2020 North Bayshore District Monitoring results.*

### **Task 2.4: Project Coordination and Public Hearings**

Fehr & Peers will be available to attend two public hearing meetings without a presentation role as part of this effort. Additional meetings or hearings can be accommodated on an as-needed basis, subject to scope and budget amendments.

**Attachment B: North Bayshore Precise Plan  
Fall 2020 and Spring 2021 North Bayshore District Monitoring and Near-Term Growth Assessment Fee Estimate (June 2020)**

Task	Principal-In-Charge	Associate-In-Charge / Project Manager	Forecast Specialist	Engineer	Graphics	Support	Total Hours	Total Labor	Direct Costs	Counts	Task Total
Billing Rate-->	\$325	\$245	\$200	\$165	\$145	\$135					
<b>Phase 1 - Fall 2020 and Spring 2021 North Bayshore District Monitoring</b>											
<b>Fall 2020</b>											
1.1. Daily Count Observations	0	1	0	4	0	0	5	\$905	\$95	\$7,700	\$8,700
1.2. Gateway Vehicle Classification Observations	0	1	0	8	0	1	10	\$1,700	\$100	\$4,800	\$6,600
1.3. Bus Occupancy Observations	0	1	0	4	0	1	6	\$1,040	\$60	\$11,500	\$12,600
1.4. Summary of Existing Travel Patterns	0	4	0	24	0	4	32	\$5,480	\$220	\$0	\$5,700
1.5. Gateway Operations Observations	0	1	0	20	0	3	24	\$3,950	\$250	\$5,000	\$9,200
<b>Spring 2021</b>											
1.1. Daily Count Observations	0	1	0	4	0	0	5	\$905	\$95	\$7,700	\$8,700
1.2. Gateway Vehicle Classification Observations	0	1	0	8	0	1	10	\$1,700	\$100	\$4,800	\$6,600
1.3. Bus Occupancy Observations	0	1	0	4	0	1	6	\$1,040	\$60	\$11,500	\$12,600
1.4. Summary of Existing Travel Patterns	0	4	0	32	40	10	86	\$13,410	\$690	\$0	\$14,100
1.5. Gateway Operations Observations	0	1	0	20	0	3	24	\$3,950	\$250	\$5,000	\$9,200
<b>Phase 2 - Near-Term Growth Assessment and Documentation</b>											
2.1. Near-Term Growth Assessment by North Bayshore Gateway	0	12	16	32	24	12	96	\$16,520	\$780	\$0	\$17,300
2.2. Prepare North Bayshore District Monitoring and Near-Term Growth Documentation											
	Draft Report	2	32	4	58	16	127	\$23,205	\$1,195	\$0	\$24,400
	Final Report	2	8	0	8	4	24	\$4,780	\$220	\$0	\$5,000
2.3. Fall 2020 Interim Deliverable											
	Draft Summary Memorandum	2	12	0	32	0	52	\$9,680	\$520	\$0	\$10,200
	Final Summary Memorandum	2	2	0	4	0	8	\$1,800	\$100	\$0	\$1,900
2.4. Attend Meetings/Hearings											
	Public Hearings (2)	0	8	0	0	0	8	\$1,960	\$240	\$0	\$2,200
<b>Total</b>	<b>8</b>	<b>90</b>	<b>20</b>	<b>262</b>	<b>84</b>	<b>59</b>	<b>523</b>	<b>\$92,025</b>	<b>\$4,975</b>	<b>\$58,000</b>	<b>\$155,000</b>

Notes:  
 Other Direct Costs / Reimbursable expenses are invoiced at cost plus 10% for handling.  
 Personal auto mileage is reimbursed at the then current IRS approved rate (58 cents per mile as of Jan 2019).  
 Voice & Data Communications (Telephone, fax, computer, e-mail, etc.) are invoiced at cost as a percentage of project labor.  
 Fehr & Peers, June 2020.