Attachment K

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Keith Higgins

Traffic Engineer

November 11, 2022

Jeffrey Nohr
Avila Construction
12 Thomas Owens Way, Suite 200
Monterey, CA 93940

Re: Susan Street Apartments Reduced Project Traffic Impacts, Pajaro, Monterey County, CA –PLN210152

Dear Jeff,

As you requested, this letter provides a summary of the change in the anticipated traffic impacts expected from the currently proposed reduced size of the Susan Street Apartments (Project) in Pajaro, Monterey County, California. The Project is currently proposed to include 45 2-bedroom apartments and one 1-bedroom manager's apartment, which could house up to 360 H2A farm workers. This is a reduction of the original project which was proposed to include 60 2-bedroom apartments and one 1-bedroom manager's apartment, which could house about 481 H2A farm workers. This summary is based on the following documents.

1. "Susan Street Apartments Transportation Impact Analysis," Keith Higgins Traffic Engineer, December 8, 2021 (original transportation study)
2. "Susan Street Apartments Transportation Impact Analysis, Pajaro, Monterey County, CA – Response to Public Works Comments" letter to you dated November 23, 2021
3. "Susan Street Apartments Transportation Impact Analysis, Pajaro, Monterey County, CA – Response to Comments from General Public" letter to Craig Spencer, County of Monterey Housing & Community Development Department, January 28, 2022
4. "Susan Street Apartments Responses to Planning Commission Comments" letter to you dated July 8, 2022, including July 1, 2022

Transportation issues addressed for the original Project included the following. Each issue includes a summary of the conclusions and recommended improvements/mitigations for the Original Project and the changes if any for the Reduced Project.

1. Project Effect on Pajaro-Area Intersection Operations

The intersections studied for the Original Project include Porter Street / San Juan Road, Porter Street – Salinas Road / Stender Avenue – Salinas Road, San Juan Road / Salinas Road, San Juan Road / Gonda Street and San Juan Road / Susan Street.

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a. Original Project

All study intersections were expected to operate acceptably under Existing and Cumulative conditions with the Original Project. No improvements or mitigations at study intersections were recommended.

b. Reduced Project

The Reduced Project will result in a 25% reduction in Project-related vehicular traffic. There will be a corresponding reduction in traffic effects which did not result in the need for any improvements with the larger Original Project. No improvements will be required.

2. Pedestrians

a. Original Project

The Original Project would generate pedestrian activity along Susan Street and San Juan Road, which has missing segments of sidewalk. The Project proposed to construct sidewalks to fill the gaps along Susan Street and on San Juan Road immediately west of Susan Street.

b. Reduced Project

The Reduced Project will generate 25% less pedestrian traffic. However, the Project will construct sidewalks to fill the gaps as originally proposed.

3. Bicycles

a. Original Project

The low existing and Original Project bicycle traffic would be accommodated by existing bicycle facilities in the Pajaro area. No bicycle improvements other than on-site bicycle racks were recommended.

b. Reduced Project

The Reduced Project will generate 25% less bicycle traffic. No change in bicycle improvements required for the Original Project are recommended, except a proportional reduction in on-site bicycle racks.

4. Transit

a. Original Project

The Original Project will provide bus and van transportation to and from work as well as for personal travel in the Pajaro/Watsonville area. The low Original Project public transit demand would be accommodated by existing transit service in the Pajaro area. No transit improvements were recommended.

b. Reduced Project

The Reduced Project will also provide bus and van transportation to and from work as well as for personal travel in the Pajaro/Watsonville area. This is anticipated to be at a level 25% below the Original Project, which is proportional to the reduction in number of residents at that Reduced Project. No transit improvements are recommended for the Reduced Project.

5. Vehicle Miles Traveled

a. Original Project

The Original Project will provide bus and van transportation to and from work as well as for personal travel in the Pajaro/Watsonville area. The Project will actually have a beneficial effect on Vehicle Miles Traveled because it will eliminate the need for these workers to use personal vehicles.

b. Reduced Project

The Reduced Project will also provide bus and van transportation to and from work as well as for personal travel in the Pajaro/Watsonville area. This will have the same beneficial effect as the Original Project, although for a smaller number of employees and associated employee trips.

6. Parking

a. Original Project

The Original Project was proposed to include 127 parking spaces with a peak parking demand of about 94 cars for a maximum parking occupancy of about 74%. The parking supply would have been more than adequate to accommodate the anticipated parking demand.

b. Reduced Project

The Reduced Project is proposed to include 95 parking spaces with a peak parking demand of about 71 cars for a maximum parking occupancy of about 75%. The parking supply will continue to be more than adequate to accommodate the anticipated parking demand.

7. Susan Street Traffic Volumes

The Original Project would add vehicular traffic to Susan Street. The actual traffic increases on Susan Street from both the Original and Reduced Project in relation to acceptable thresholds established by the Monterey County Public Works Department are separately discussed below. The analyses assume full occupancy of the Project. However, all H2A housing is vacant from late November until early March. Occupancy gradually increases from being vacant in early March to full occupancy by early June, depending on weather. Residents begin to leave as the agricultural season winds down at the end of October. H2A projects are fully vacated except for the manager/caretaker apartment by late November. It is important to emphasize that both the Original Project and Reduced Project will therefore only be occupied about 8.5 months per year with full occupancy for about 5 months. The following discussions of traffic volumes on Susan Street for both the Original Project and Reduced Project are based on the Project operating at full occupancy. A summary of the Original and Reduced Project traffic volumes on Susan Street is provided at the end of this section.

The Original and Reduced Project traffic generation estimates are based on actual counts collected at the 525 Third Street Apartments Agricultural Worker Housing project (Greenfield Project) in Greenfield, California, which is typical to other H2A housing projects and identical in size to the Original Project.

a. Original Project

Susan Street conforms to Monterey County Public Works "Modified Tertiary Street" dimensions. According to the Monterey County Standard Street Classification, the maximum volume for Tertiary Streets is 1,000 vehicles per day (vpd).

The Original Project was anticipated to result in an increase in traffic along Susan Street of about 175 vehicles per day (vpd). This would result in Susan Street carrying about 575 vpd immediately north of San Juan Road (about 58% of capacity) and about 175 vpd (about 18% of capacity) at the Project entrance, which is the current end of the street. The Original Project would have resulted in traffic volumes well within the capacity of Susan Street even when operating at full occupancy.

b. Reduced Project

The Reduced Project is anticipated to increase traffic along Susan Street by about 131 vehicles per day (vpd), which is a reduction of about 25% from the Original Project. This would result in Susan Street carrying about 531 vpd immediately north of San Juan Road (about 53% of capacity) and about 131 vpd (about 13% of capacity) at the Project entrance, which is the current end of the street. The Reduced Project will add 25% less project traffic to Susan Street, resulting in traffic volumes well within the capacity of Susan Street.

Location on Susan Street	Existing ADT (% of Capacity)	Existing + Original Project (% of Capacity)	Existing + Reduced Project (% of Capacity)
At San Juan Road	400 (40%)	575 (58%)	531 (53%)
North of Body Shop	300 (30%)	475 (48%)	431 (43%)
End of Street	0 (0%	175 (18%)	131 (13%

Table 1 – Susan Street Traffic Volumes

8. Susan Street Width

The Original and Reduced Project will include regular bus traffic on Susan Street, which is a narrow residential street. This was a related issue to the actual total traffic volumes (i.e., cars, vans, and buses) added to Susan Street. The ability of Susan Street to accommodate the amount of bus traffic for the Original Project and Reduced Project are discussed below.

The Original and Reduced Project will add bus traffic to Susan Street, which is a narrow residential street. Susan Street has an effective width of 34 feet curb to curb. Field measurements of the spacing between cars parked on both sides of Susan Street indicate the roadway clearance for two directions of travel generally varies between 19 to 20 feet. A width of 19 feet is adequate to allow passenger cars to pass oncoming vehicles unimpeded. However, buses may have to yield if encountering an oncoming bus.

As described in the introduction to the Susan Street Traffic Volumes discussion, the following discussion of the effect of the width of Susan Street on bus circulation assumes full occupancy, which occurs for about 5 months out of the year. The Original and Reduced Project will be vacant for about 3.5 months per year and partially occupied for about 3.5 months per year.

The following detailed description of the frequency of traffic conflicts can be summarized by stating that a total of about 5 to 6 buses (2 or 3 inbound and 3 outbound) will travel on Susan Street in the afternoon peak hour when existing neighborhood traffic is near it peak the vast majority of the time existing drivers on Susan Street will rarely encounter a bus. If a bus is encountered, they may be able to pass with no difficulty. This is a bus in each direction about every 20 to 30 minutes. If parked vehicles restrict the width of the travel way, a vehicle will need to wait a few seconds for the other vehicle to pass. Most hours of the day and night there will be no buses and very little project traffic.

a. Original Project

i. Project Morning Peak Hour (3-4 AM)

The Original Project's peak trip generation is between 3 and 4 AM when workers are transported to work sites. This is much earlier than the morning street peak period of 7-9 AM. The Original Project was estimated to generate a total less than one vehicle every 10 minutes including buses in each direction during its highest hour of trip generation in the middle of the night when little or no neighborhood activity takes place.

ii. Street Morning Peak Period (6:30-10 AM)

The Original Project would only add 1 vehicle per hour and generally no buses during the entire 3.5 hour morning street peak period between 6:30 and 10 AM. The Original Project would have virtually no impact during the entire morning street peak period.

iii. Project Mid-Afternoon Peak Hour (2-3 PM)

The Original Project was expected to add about one total vehicle and one bus every 15 minutes in each direction during the Project mid-afternoon peak hour between 2 and 3 PM when workers return to the Project from their respective work sites.

iv. Street Evening Peak Hour (4-5 PM)

The Original Project would only add one bus every 30 minutes during the evening street peak hour between 4 and 5 PM. This is a vehicle every 4 minutes and a bus every 15 minutes, or one vehicle every 8 minutes and one bus every 30 minutes in each direction. The frequency of encountering any oncoming vehicle will increase only slightly from existing conditions.

b. Reduced Project

The Reduced Project will result in a reduction of 25% in traffic increases anticipated from the Original Project. This will result in the following Project and Street peak hour conditions.

i. Project Morning Peak Hour (3-4 AM)

The Reduce Project will generate a total less than one vehicle every 13 minutes including buses in each direction during its highest hour of trip generation in the middle of the night when little or no neighborhood activity takes place.

ii. Street Morning Peak Period (6:30-10 AM)

The Reduced Project would only add 2 to 3 vehicles and generally no buses during the entire 3.5 hour morning street peak period between 6:30 and 10 AM. The Reduced Project would have no impact during the entire morning street peak period.

iii. Project Mid-Afternoon Peak Hour (2-3 PM)

The Reduced Project will add about one total vehicle and one bus every 20 minutes in each direction during the Project mid-afternoon peak hour between 2 and 3 PM when workers return to the Project from their respective work sites.

iv. Street Evening Peak Hour (4-5 PM)

The Reduced Project would only add one bus every 40 minutes during the evening street peak hour between 4 and 5 PM. This is a vehicle every 5 minutes and a bus every 20 minutes, or one vehicle every 11 minutes and one bus every 40 minutes in each direction. The frequency of encountering any oncoming vehicle will increase only slightly from existing conditions.

9. Adequacy of San Juan Road / Susan Street Intersection

Left turning buses exiting and entering Susan Street to and from San Juan Road as well as right turn exiting buses will easily be able to negotiate the San Juan Road / Susan Street intersection. However, westbound right turning buses onto Susan Street will encroach about 6 feet into the southbound Susan Street approach lane.

a. Original Project

The Original Project was estimated to result in an average of about 3 westbound right turning buses per hour during the highest entering flow of buses between about 3 and 4 AM. About one or two buses per hour were estimated to turn right onto Susan Street from westbound San Juan Road during the Project's afternoon peak hour. Under the Original Project, buses were expected to turn right at random times during the early morning and afternoon, but rarely more than two per hour.

The above bus frequency is considered to result in minimal instances where a westbound right turning bus will encounter a southbound Susan Street vehicle stopped at San Juan Road that will impede its ability to complete the turn. This could be accommodated by buses pulling over to the curb in front of the body shop and waiting 10 to 20 seconds for the vehicle to clear the southbound approach. Also, the existing two way left turn lane on the east side of San Juan Road has almost no westbound left turn traffic and can be used at the discretion of the bus driver to swing a few feet wide as the bus approaches Susan Street from the east.

b. Reduced Project

The Reduced Project will reduce the bus frequency by 25% with a corresponding reduction in westbound right turning buses encountering an outbound vehicle on southbound Susan Street.

10. Project Construction Traffic Operations

Reduced Project earthwork operations including import of fill materials is expected to include about 1,500 yards of cut and 7,000 cubic yards of fill, which will represnt a 15% reduction from the Original Project. There will be a

10% to 15% reduction in construction activities associated with building and site improvement construction due to the reduction from 4 major buildings to 3 as well as a corresponding reduction in parking spaces.

11. Conclusions

The Reduced Project will result in a 25% reduction in Project traffic compared with the Original Project. The Original Project was expected to result in no significant vehicle miles traveled impacts or other off-site traffic effects requiring improvements. The minimal impacts expected from the Original Project will be reduced proportionally to the reduction in size, further ensuring acceptable traffic operations with the implementation of the Project.

Please contact me if you have any questions.

Thank for the opportunity to assist you,

Keith Higgins

Keith B. Higgins, PE, TE

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