CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

# MEMORANDUM

**DATE:** August 22, 2022

**TO:** Thomas J. Leary, MemorialCare Health System

**FROM:** Ken Wilhelm, LSA

**SUBJECT:** Vehicle Miles Traveled Analysis for San Clemente Senior Housing/Medical Office Project

LSA has prepared this vehicle miles traveled (VMT) analysis for the proposed San Clemente Senior Housing/Medical Office project (project) at 654 Camino De Los Mares in San Clemente, California. The purpose of this memorandum is to determine whether the project would result in a significant transportation impact compared with the previously analyzed uses on site according to the revised California Environmental Quality Act (CEQA) guidelines.

## PROJECT DESCRIPTION

The project site is currently a vacant hospital. The project includes the demolition of an existing, vacant hospital and the construction of 250 dwelling units of senior housing and 7,500 square feet (sf) of medical office use. Access to the project would be provided via existing signalized and unsignalized driveways along Camino De Los Mares.

## VEHICLE MILES TRAVELED

As a result of Senate Bill (SB) 743, the California Office of Administrative Law cleared the revised *State CEQA Guidelines* for use on December 28, 2018. Among the changes to the guidelines was removal of vehicle delay and level of service from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on VMT. VMT is calculated as a product of trip generation and the average distance traveled by those trips.

### City of San Clemente Housing and Safety Elements Update

In September 2021, the City of San Clemente (City) adopted an Environmental Impact Report (EIR) to update its Housing and Safety Elements. The objectives of the study included:

1. Identify potential future rezone sites and obtain public feedback on the rezones that should be pursued to accommodate the Regional Housing Needs Allocation (RHNA);

2. Minimize impacts from new development on established neighborhoods;

3. Provide flexibility for implementation of rezoning adequate to meet the City's remaining RHNA allocation of 982 units;

4. Limit exposure to potential natural and human-made hazards; and

5. Effectively respond to and recover from public safety emergencies.

The project site was identified as a "Candidate Site for Rezoning" (Site V, Table 3-4 of the EIR) that would accommodate a mix of residential and community commercial uses. Site V was identified as including 238 dwelling units and 7,500 sf commercial use within the General Plan. The EIR evaluated the environmental impacts (including VMT) assuming this land use on the project site. An Addendum to the City's approved EIR is being prepared for the proposed project.

## TRIP CALCULATION

The daily and peak-hour trips of the previously considered and the proposed project were calculated using trip rates from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition (2021).

Table A presents a comparison of project trip generation. As shown in Table A, Site V of the adopted Housing Element EIR is estimated to generate 1,162 average daily trips (ADT), including 99 trips in the a.m. peak hour and 104 trips in the p.m. peak hour. The currently proposed senior housing/medical office project is estimated to generate 1,080 ADT, including 73 trips in the a.m. peak hour and 92 trips in the p.m. peak hour. Compared to the trip generation potential for the uses analyzed in the Housing and Safety Elements EIR, the proposed project generates fewer daily and peak-hour trips. If average residential and office trip lengths are equivalent between the previously analyzed and the proposed projects, the VMT generated by the proposed project would be lower and the proposed project's transportation impact would be less than the previously analyzed uses in the Housing and Safety Elements EIR.

The City does not have specific guidance/thresholds for VMT. As such, the Office of Planning and Research (OPR) Technical Advisory (December 2018) was referenced. The OPR Technical Advisory recommends that a project generating 110 ADT or less can be screened out of a VMT analysis due to the presumption of a less than significant impact. The currently proposed senior housing/medical office project could be assumed to have a less than significant transportation impact, as the net project would generate fewer than 110 ADT compared to the uses previously analyzed and approved in the Housing and Safety Elements EIR.

## Table A: Project Trip Generation Comparison

| Land Use | Size | Unit | ADT | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | In | Out | Total | In | Out | Total |
| **Trip Rates[1]** | | | | | | | | | |
| Senior Adult Housing – Multifamily | | DU | 3.24 | 0.07 | 0.13 | 0.20 | 0.14 | 0.11 | 0.25 |
| Medical-Dental Office Building – Stand-Alone | | TSF | 36.00 | 2.45 | 0.65 | 3.10 | 1.18 | 2.75 | 3.93 |
| Multifamily Housing (Mid-Rise) | | DU | 4.54 | 0.09 | 0.28 | 0.37 | 0.24 | 0.15 | 0.39 |
| General Office Building | | TSF | 10.84 | 1.34 | 0.18 | 1.52 | 0.24 | 1.20 | 1.44 |
| **General Plan (Housing Element) Trip Generation** | | | | | | | | | |
| Multifamily Housing (Mid-Rise) | 238 | DU | 1,081 | 21 | 67 | 88 | 57 | 36 | 93 |
| General Office Building | 7.500 | TSF | 81 | 10 | 1 | 11 | 2 | 9 | 11 |
| **Total Trip Generation** | | | **1,162** | **31** | **68** | **99** | **59** | **45** | **104** |
| **Proposed Project Trip Generation** | | | | | | | | | |
| Senior Adult Housing – Multifamily | 250 | DU | 810 | 18 | 32 | 50 | 35 | 28 | 63 |
| Medical-Dental Office Building – Stand-Alone | 7.500 | TSF | 270 | 18 | 5 | 23 | 9 | 20 | 29 |
| **Total Trip Generation** | | | **1,080** | **36** | **37** | **73** | **44** | **48** | **92** |
| **Net Trip Generation (Proposed Project – General Plan [Housing Element])** | | | **(82)** | **5** | **(31)** | **(26)** | **(15)** | **3** | **(12)** |

[1] Trip rates referenced from the Institute of Transportation Engineers *Trip Generation Manual*, 11th Edition (2021).
Land Use Code 252 – Senior Adult Housing – Multifamily
Land Use Code 720 – Medical-Dental Office Building – Stand-Alone
Land Use Code 221 – Multifamily Housing (Mid-Rise) – Not Close to Rail Transit
Land Use Code 710 – General Office Building
ADT = average daily trips
DU = dwelling unit
TSF = thousand square feet

## Proposed Project Vehicle Miles Traveled

The proposed project includes senior housing units rather than typical multifamily dwelling units as evaluated in the City's Housing Element EIR. The proposed project also includes medical office use rather than commercial (general office) use. These two project land uses would generate trips with shorter trip lengths than the uses previously analyzed. For senior housing units, the absence of a home-work commute for most units would eliminate the longest trips generated by residential uses.

The medical office building presents an intervening use that helps to reduce trip distance for the residents of the proposed project, the senior housing east of the project site, and other residential uses in San Clemente that would find the proposed medical office to be more convenient than existing medical offices farther away. LSA calculated the internal trip capture reductions between the proposed uses due to the interaction between the senior housing and medical office uses on site. Internal trip capture reductions were estimated using the National Cooperative Highway Research Program (NCHRP) 684 Trip Capture Estimation Tool, which is referenced in the ITE Trip Generation Handbook, 3rd Edition (2017). Based on the NCHRP 684 Trip Capture Estimation Tool (attached), 3 percent of the senior housing outbound trips and 6 percent of the medical office inbound trips occur internally during the a.m. peak hour. Four percent of the senior housing

outbound trips and 11 percent of the medical office inbound trips occur internally during the p.m. peak hour.

The internal trip capture concept could also be applied to the senior housing use east of the project site (San Clemente Villas by the Sea), as those residents would be able to walk to the proposed medical office building rather than driving to other medical office buildings in San Clemente or beyond. It is therefore expected that there would be a reduction in VMT due to the internal trips on site.

Furthermore, the project site is immediately east of Ocean View Plaza with a variety of uses including restaurant, retail, bank, supermarket, and drugstore. The future senior housing residents would be able to walk to these nearby uses rather than driving to similar uses in San Clemente and beyond, which would result in a reduction in VMT.

The combined effect of lower trip generation and reduced trip length would be fewer VMT being generated than the previously analyzed uses on site, and the impacts related to VMT would be less than previously analyzed in the Housing and Safety Elements EIR.

## CONCLUSIONS

The proposed project of 250 dwelling units of senior housing and 7,500 sf of medical office use would generate fewer daily, a.m., and p.m. peak-hour trips as well as shorter trip lengths than the previously analyzed uses on site. The proposed medical office use presents an intervening use that helps to reduce trip distance for the residents in San Clemente. Therefore, the project's impacts related to VMT would be less than previously analyzed in the Housing and Safety Elements EIR.

As identified in the EIR, implementation of transportation demand management (TDM) strategies will promote the reduction of VMT. The City shall incorporate objective development standards into the Overlay Zone that require implementation of TDM measures consistent with Mobility Element Policy 1.21 to reduce single-occupant vehicles and encourage alternative modes of transportation. The project will be consistent with these development standards.

Attachment: NCHRP 684 Trip Capture Estimation Tool

| NCHRP 684 Internal Trip Capture Estimation Tool | | | |
|---|---|---|---|
| **Project Name:** | San Clemente Senior Housing/Medical Office | **Organization:** | |
| **Project Location:** | | **Performed By:** | |
| **Scenario Description:** | | **Date:** | |
| **Analysis Year:** | | **Checked By:** | |
| **Analysis Period:** | **AM Street Peak Hour** | **Date:** | |

**Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)**

| Land Use | Development Data (*For Information Only*) | | | Estimated Vehicle-Trips[3] | | |
|---|---|---|---|---|---|---|
| | ITE LUCs[1] | Quantity | Units | Total | Entering | Exiting |
| Office | | | | 23 | 18 | 5 |
| Retail | | | | 0 | | |
| Restaurant | | | | 0 | | |
| Cinema/Entertainment | | | | 0 | | |
| Residential | | | | 50 | 18 | 32 |
| Hotel | | | | 0 | | |
| All Other Land Uses[2] | | | | 0 | | |
| | | | | 73 | 36 | 37 |

**Table 2-A: Mode Split and Vehicle Occupancy Estimates**

| Land Use | Entering Trips | | | Exiting Trips | | |
|---|---|---|---|---|---|---|
| | Veh. Occ.[4] | % Transit | % Non-Motorized | Veh. Occ.[4] | % Transit | % Non-Motorized |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |
| All Other Land Uses[2] | | | | | | |

**Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)**

| Origin (From) | Destination (To) | | | | | |
|---|---|---|---|---|---|---|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |

**Table 4-A: Internal Person-Trip Origin-Destination Matrix***

| Origin (From) | Destination (To) | | | | | |
|---|---|---|---|---|---|---|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | 0 | 0 | 0 | 0 | 0 |
| Retail | 0 | | 0 | 0 | 0 | 0 |
| Restaurant | 0 | 0 | | 0 | 0 | 0 |
| Cinema/Entertainment | 0 | 0 | 0 | | 0 | 0 |
| Residential | 1 | 0 | 0 | 0 | | 0 |
| Hotel | 0 | 0 | 0 | 0 | 0 | |

**Table 5-A: Computations Summary**

| | Total | Entering | Exiting |
|---|---|---|---|
| All Person-Trips | 73 | 36 | 37 |
| Internal Capture Percentage | 3% | 3% | 3% |
| | | | |
| External Vehicle-Trips[5] | 71 | 35 | 36 |
| External Transit-Trips[6] | 0 | 0 | 0 |
| External Non-Motorized Trips[6] | 0 | 0 | 0 |

**Table 6-A: Internal Trip Capture Percentages by Land Use**

| Land Use | Entering Trips | Exiting Trips |
|---|---|---|
| Office | 6% | 0% |
| Retail | N/A | N/A |
| Restaurant | N/A | N/A |
| Cinema/Entertainment | N/A | N/A |
| Residential | 0% | 3% |
| Hotel | N/A | N/A |

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

| NCHRP 684 Internal Trip Capture Estimation Tool | | | |
|---|---|---|---|
| **Project Name:** | San Clemente Senior Housing/Medical Office | **Organization:** | |
| **Project Location:** | | **Performed By:** | |
| **Scenario Description:** | | **Date:** | |
| **Analysis Year:** | | **Checked By:** | |
| **Analysis Period:** | **PM Street Peak Hour** | **Date:** | |

**Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)**

| Land Use | Development Data (*For Information Only*) | | | Estimated Vehicle-Trips[3] | | |
|---|---|---|---|---|---|---|
| | ITE LUCs[1] | Quantity | Units | Total | Entering | Exiting |
| Office | | | | 29 | 9 | 20 |
| Retail | | | | 0 | | |
| Restaurant | | | | 0 | | |
| Cinema/Entertainment | | | | 0 | | |
| Residential | | | | 63 | 35 | 28 |
| Hotel | | | | 0 | | |
| All Other Land Uses[2] | | | | 0 | | |
| | | | | 92 | 44 | 48 |

**Table 2-P: Mode Split and Vehicle Occupancy Estimates**

| Land Use | Entering Trips | | | Exiting Trips | | |
|---|---|---|---|---|---|---|
| | Veh. Occ.[4] | % Transit | % Non-Motorized | Veh. Occ.[4] | % Transit | % Non-Motorized |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |
| All Other Land Uses[2] | | | | | | |

**Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)**

| Origin (From) | Destination (To) | | | | | |
|---|---|---|---|---|---|---|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | | | | | |
| Retail | | | | | | |
| Restaurant | | | | | | |
| Cinema/Entertainment | | | | | | |
| Residential | | | | | | |
| Hotel | | | | | | |

**Table 4-P: Internal Person-Trip Origin-Destination Matrix***

| Origin (From) | Destination (To) | | | | | |
|---|---|---|---|---|---|---|
| | Office | Retail | Restaurant | Cinema/Entertainment | Residential | Hotel |
| Office | | 0 | 0 | 0 | 0 | 0 |
| Retail | 0 | | 0 | 0 | 0 | 0 |
| Restaurant | 0 | 0 | | 0 | 0 | 0 |
| Cinema/Entertainment | 0 | 0 | 0 | | 0 | 0 |
| Residential | 1 | 0 | 0 | 0 | | 0 |
| Hotel | 0 | 0 | 0 | 0 | 0 | |

**Table 5-P: Computations Summary**

| | Total | Entering | Exiting |
|---|---|---|---|
| All Person-Trips | 92 | 44 | 48 |
| Internal Capture Percentage | 2% | 2% | 2% |
| | | | |
| External Vehicle-Trips[5] | 90 | 43 | 47 |
| External Transit-Trips[6] | 0 | 0 | 0 |
| External Non-Motorized Trips[6] | 0 | 0 | 0 |

**Table 6-P: Internal Trip Capture Percentages by Land Use**

| Land Use | Entering Trips | Exiting Trips |
|---|---|---|
| Office | 11% | 0% |
| Retail | N/A | N/A |
| Restaurant | N/A | N/A |
| Cinema/Entertainment | N/A | N/A |
| Residential | 0% | 4% |
| Hotel | N/A | N/A |

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1