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# Keith Higgins

## Traffic Engineer

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May 17, 2023

Ryan Aeschliman  
Development Director  
Esperanza Carmel  
7th Ave 2 NW of Lincoln  
Carmel-by-the-Sea, CA 93923

Re: Ulrika Plaza Trip Generation and Vehicle-Miles-Traveled Study Update, Carmel-by-the-Sea, California

Dear Ryan,

Per your request, this is an update of the traffic study submitted to Seth Eddy dated March 4, 2022, for the proposed Ulrika Plaza (Project), which is included as **Attachment A**. Based on the site plan dated May 12, 2023, the Current Project includes 12 apartments, 9,000 net square feet (11,777 gross square feet) of retail shops and a fast casual restaurant with a total of 948 net square feet of floor plus about 500 square feet of outdoor seating area for a total of 1,761 gross square feet of floor are (including about 313 square feet of basement storage space). **Table 1** provides a summary comparing the current project size to the Project Site Plan dated February 22, 2022, analyzed in the March 4, 2022 Study.

Project Component	Current Project (5.12. 2023 Site Plan)	Previous Project (2.22.2022 Site Plan)	Difference
1. Apartments	12 Units	12 Units	0 (No change)
2. Shops	11,777 Gross S.F.	10,612 Gross S.F.	+1,165 Gross S.F.
3. Fast Casual Dining	1,761 Gross S.F.	1,836 Gross S.F.	-75 Gross S.F.
4. Retail Total (Shops+Dining)	13,538 Gross S.F.	12,448 Gross S.F.	+1,090 Gross S.F.

**Table 1 – Comparison of Current and Previous Project Descriptions**

### A. PROJECT TRIP GENERATION

**Attachment B** provides a tabular summary of the traffic anticipated to be generated by each component of the current Project, which is based on the same trip generation data and assumptions as the March 4, 2022 Study.

The current Project will generate about 493 more gross daily trips including about 20 AM peak hour trips and 53 PM peak hour trips than the previous use. Its increase in net trips above the is estimated to total about 329 daily trips with 14 in the AM peak hour and 34 in the PM peak hour. This is a gross trip generation increase of about 67 daily trips, 4 AM peak hour trips and 7 PM peak hour trips than expected from the February 22, 2022 Project proposal. It is a net increase of about 45 daily trips, 3 AM peak hour trips and 5 PM peak hour trips than expected from the February 22, 2022 Project proposal.

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The Current Project increases above the Previous Project are imperceptible and will not result in a change in traffic operations in the Project vicinity.

## **B. PROJECT VEHICLE-MILES-TRAVELED**

The vehicle-miles-travelled (VMT) policies and guidelines discussed in the March 4, 2022 Study still apply to the Current Project.

1. Multi-Family Housing
  - a. Residential Significance Criterion - The OPR Guidelines, page 12, states, "Many local agencies have developed screening thresholds to indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.
  - b. Residential VMT Analysis – The Current Project still includes a total of 12 multi-family housing units and are still estimated to generate about 81 gross daily trips, which is below the 110 trips per day significance threshold. This component of the Project will continue to have a less-than-significant VMT impact.
2. Retail Uses (Variety Stores and Restaurant)
  - a. The retail component of the Project will include a total gross floor area of about 13,538 square feet. The overall floor area will continue to be far below the 50,000 square-foot threshold considered to be regional serving that would potentially result in a significant VMT impact. The types of uses anticipated in the Project will serve local clientele and visitors. The retail component of the Project will have a less-than-significant VMT impact.

## **C. SUMMARY AND CONCLUSION**

The Current Project will have the same number of apartments and about 1,090 additional gross square feet of retail space. This will result in an imperceptible increase in traffic and associated effect on traffic operations above the trips estimated for the Previous Project. The Current Project will essentially have the same insignificant impact on VMT as predicted in the attached March 4, 2022 Study. The detailed discussion in the March 4, 2022 Study still applies to the Current Project.

If you have any questions regarding this analysis or need additional information, please do not hesitate to contact me at your convenience. Thank you for the opportunity to assist you.

Respectfully submitted,

*Keith Higgins*  
Keith B. Higgins, PE, TE  
Attachments

# Keith Higgins

## Traffic Engineer

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March 4, 2022

Seth Eddy  
Project Manager  
Esperanza Carmel  
7th Ave 2 NW of Lincoln  
Carmel-by-the-Sea, CA 93923

Re: Ulrika Plaza Trip Generation and Vehicle-Miles-Traveled Study, Carmel-by-the-Sea, California

Dear Seth,

Per your request, this is a traffic study for the proposed Ulrika Plaza (Project), located at the southwest corner of the 5<sup>th</sup> Avenue & Dolores Street intersection in Carmel-by-the-Sea, California (City). The current site plan is provided in **Attachment A**, which includes the Project's underground parking and ancillary facilities plan, first floor plan indicating floor areas for the 15 proposed commercial spaces and plans of the upper two floors.

This study focuses on Project trip generation, which was specifically requested by the City. Trip generation is estimated for the proposed project based on trip generation rates in the ITE Manual. The ITE Manual is the standard source of trip generation data used throughout the traffic engineering and transportation planning industry.

The Project is proposed to include the following.

1. First Floor - 8,943 net square feet of commercial floor area on the first floor. It is assumed that Commercial Unit 4, which includes 1,000 square feet of net floor area, will be a fast casual restaurant. The outdoor seating area on the first floor measures about 500 square feet. As a worst-case assumption, this is included as a part of the restaurant for a total net floor area of 1,500 square feet.

In addition, restrooms, storage, hallway, stairwell, mechanical and electrical spaces totaling about 3,050 square feet of floor area is provided in the east side of the basement to support first floor commercial uses. This space is assumed to be used proportionally by each of the commercial units, based on square footage. This space is then added to the net floor area for an equivalent gross floor area of 12,448 square feet, 10,612 square feet of which is considered Variety Store and 1,836 gross square feet is considered restaurant. These floor areas are used because trip generation rates in the "Trip Generation Manual," Institute of Transportation Engineers, 11th Edition, 2021 (ITE Manual) are based on gross, not net, floor area.

2. Upper Two Floors - A total of 12 apartments are proposed on the upper two floors. An additional approximately 6,800 square feet of storage and ancillary space is provided in the basement adjacent to the underground parking to support these residential uses. This floor area will not generate traffic in addition to what is expected from the apartments because standard trip generation rates account for residential storage area.

The Project site is currently vacant with the exception of a partially constructed underground parking. According to Google Earth historic aerials, the site was occupied as recently as 2017. An estimate of trip generation from this recent land use is also provided for comparative purposes.

Although the City has apparently not requested it at this time, a Vehicle-Miles-Traveled (VMT) evaluation is included as well, which is required per the latest California Environmental Quality Act (CEQA) regulations.

## **A. PROJECT TRIP GENERATION**

**Attachment B** provides a tabular summary of the traffic anticipated to be generated by each component of the Project, as summarized in the following discussion.

1. Multi-family Housing - The multi-family housing component of the Project will generate a total of about 81 daily trips with 5 during the AM peak hour and 6 during the PM peak hour. An internal trip allowance of 10% is applied to the residential component of the Project because a portion of the Project will offer on-site residential trip attractions such as retail and food service. The net residential trip generation estimate includes about 73 daily trips with 4 during the AM peak hour and 5 during the PM peak hour.
2. Retail Commercial - The Project's retail spaces, which are assumed to include Units 1 through 3 and 5 through 15, will generate about 676 gross daily trips with 32 during the AM peak hour and 71 during the PM peak hour. According to the "Trip Generation Manual," Institute of Transportation Engineers (ITE), 11th Edition, 2021, an average of about 34% of retail trips are captured from traffic already passing the Project to and from a primary destination. The resulting net trips represent the increase in traffic on the nearby street system and will total about 446 daily trips with 21 during the AM peak hour and 47 during the PM peak hour.
3. Restaurant - A Restaurant is assumed to occupy Unit 4 and is expected to generate about 178 gross daily trips with 3 during the AM peak hour and 23 during the PM peak hour. According to the "Trip Generation Manual," Institute of Transportation Engineers (ITE), 11th Edition, 2021, an average of about 43% of fast casual/high turnover sit-down restaurant trips are captured from traffic already passing the Project. The Restaurant net trip generation is therefore estimated to total about 101 daily trips with 2 during the AM peak hour and 13 during the PM peak hour.

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March 4, 2022

4. The entire Project is expected to generate a gross total of about 935 daily trips with 40 during the AM peak hour and 100 during the PM peak hour. The net increase in traffic on the nearby street system is expected to total about 620 daily trips with 27 during the AM peak hour and 65 during the PM peak hour.

The above estimates are likely to be conservative. The Project's net increase in traffic on the nearby streets in greater downtown Carmel is likely to be much less. This is because the Project's location is conducive to walking to and from nearby residential areas and complementary commercial and employment uses in downtown Carmel. The "Trip Generation Handbook," Institute of Transportation Engineers, 3rd Edition, September 2017, Chapter 7, Trip Generation for Urban Infill/Redevelopment, page 65, recognizes this. It states, "The current *Trip Generation Manual* data volumes do not reflect trip generation at urban infill sites. Redevelopment in built out areas and new development in areas that are almost fully built out often results in fewer vehicle trips generated than would result in suburban and outlying locations. These effects may be the result of modal shifts:

- More walking (because of closer proximity of complementary uses).
- More transit ridership (because of convenient, frequent transit service).
- More bicycling (because of bicycle facilities that improve safety or reduce travel time).
- Higher vehicle occupancy (because of more carpooling that results from overall traffic congestion, preferential treatments along roadway network, or parking pricing-or limited parking supply)."

Most of the above characteristics are present in downtown Carmel and therefore applicable to this project.

Finally, the Project site was occupied by a commercial project that was removed from the site in 2017. That project is conservatively estimated to include the equivalent of about 8,000 square feet of variety store floor area. It would have generated about 509 gross daily trips with 24 during the AM peak hour and 54 during the PM peak hour. Its net trip generation is estimated to total about 336 daily trips with 16 during the AM peak hour and 36 during the PM peak hour assuming a typical pass-by trip ate of 34%.

The current Project will generate about 426 more gross daily trips including about 16 AM peak hour trips and 46 PM peak hour trips than the previous use. Its increase in net trips is estimated to total about 284 daily trips with 11 in the AM peak hour and 29 in the PM peak hour.

## **B. PROJECT VEHICLE-MILES-TRAVELED**

As required by California SB 743, vehicle-miles-travelled (VMT) has recently replaced level of service in the evaluation of environmental impacts under CEQA. Carmel-by-the-Sea has not adopted a VMT policy which would include a methodology for performing this analysis. This analysis is therefore based on the "Technical Advisory on Evaluating Transportation Impacts in CEQA," State of California Governor's Office of Planning and Research, December 2018 (OPR Guidelines), which provides implementation guidance for SB 743 for evaluating development proposals. This is consistent with the policies adopted

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by other nearby agencies including the City of Monterey, Santa Cruz County, and Caltrans. Monterey County is in the process of adopting a VMT policy and evaluation methodology nearly identical to these other agencies.

The OPR Guidelines include criteria for determining if development proposals will require further VMT analysis or if the proposal is below significance thresholds and exempt from additional analysis. The OPR Guidelines, page 17, states, "Lead agencies can evaluate each component of a mixed-use project independently and apply the significance threshold for each project type included (e.g., residential and retail). Alternatively, a lead agency may consider only the project's dominant use. In the analysis of each use, a project should take credit for internal capture. Combining different land uses and applying one threshold to those land uses may result in an inaccurate impact assessment." The two main components of the project, residential and commercial (retail), are therefore analyzed separately, as described below.

1. Multi-Family Housing

- a. Residential Significance Criterion - The OPR Guidelines, page 12, states, "Many local agencies have developed screening thresholds to indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.
- b. Residential VMT Analysis - The 12 multi-family housing units are estimated to generate about 81 gross daily trips, which is below the 110 trips per day significance threshold. This component of the Project will have a less-than-significant VMT impact.

2. Retail Uses (Variety Stores and Restaurant)

- a. Retail Significance Criterion - The OPR Guidelines, pages 16-17, states, "Many cities and counties define local-serving and regional-serving retail in their zoning codes. Lead agencies may refer to those local definitions when available, but should also consider any project-specific information, such as market studies or economic impacts analyses that might bear on customers' travel behavior. Because lead agencies will best understand their own communities and the likely travel behaviors of future project users, they are likely in the best position to decide when a project will likely be local-serving. Generally, however, retail development including stores larger than 50,000 square feet might be considered regional-serving, and so lead agencies should undertake an analysis to determine whether the project might increase or decrease VMT."
- b. Retail VMT Analysis – The retail component of the Project will include a total 8,943 net square feet of floor area with up to 15 separate units, which corresponds with a gross floor area of about 12,448 square feet. The overall floor area is far below the 50,000 square-foot threshold considered to be regional serving that would potentially result in a significant VMT

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Seth Eddy  
March 4, 2022

impact. The types of uses anticipated in the Project will serve local clientele and visitors.  
The retail component of the Project will have a less-than-significant VMT impact.

If you have any questions regarding this analysis or need additional information, please do not hesitate to contact me at your convenience. Thank you for the opportunity to assist you.

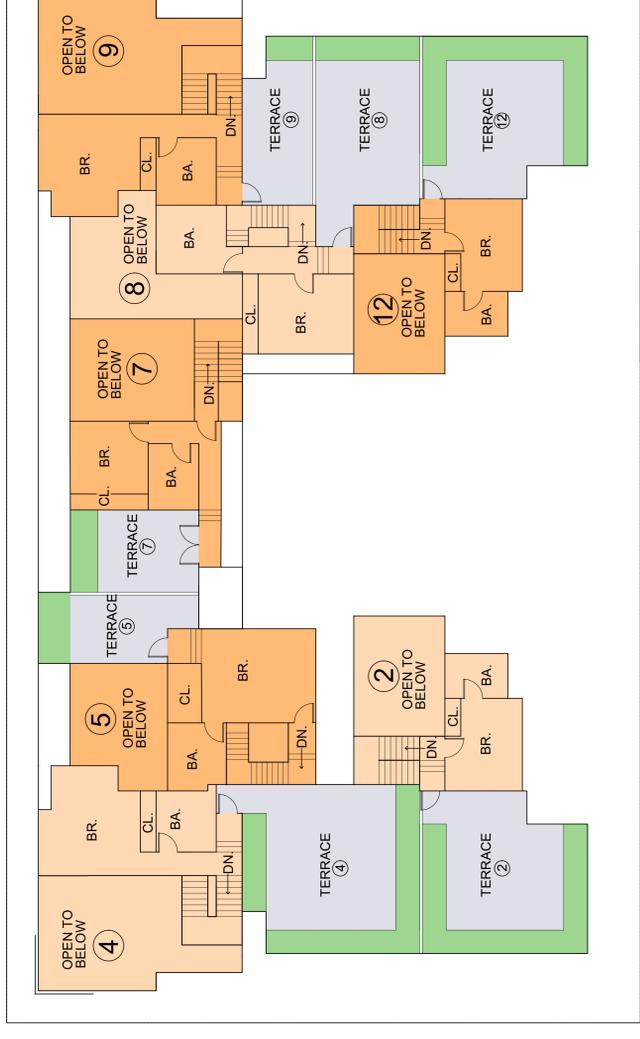
Respectfully submitted,

*Keith Higgins*

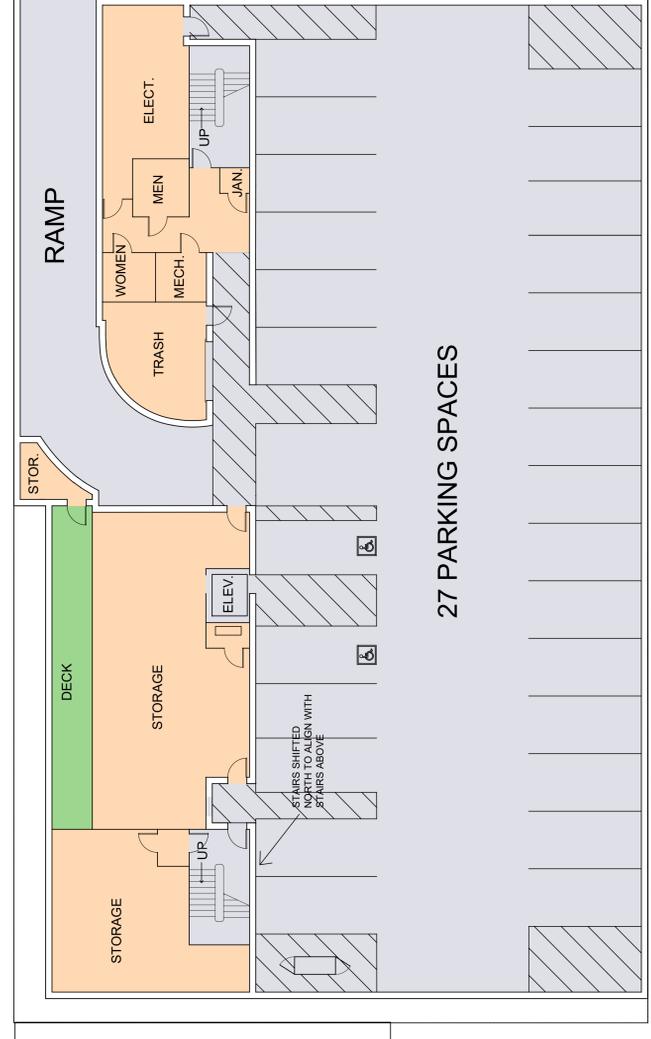
Keith B. Higgins, PE, TE  
Attachments

**Attachment A**  
**Project Floor Plans and Floor Area Tabulations**

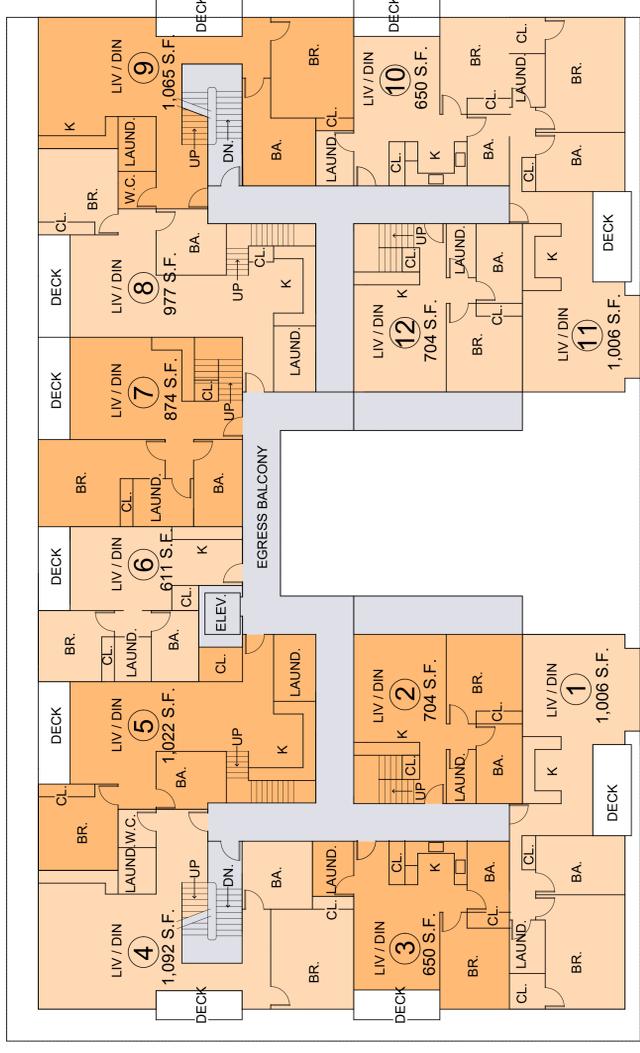




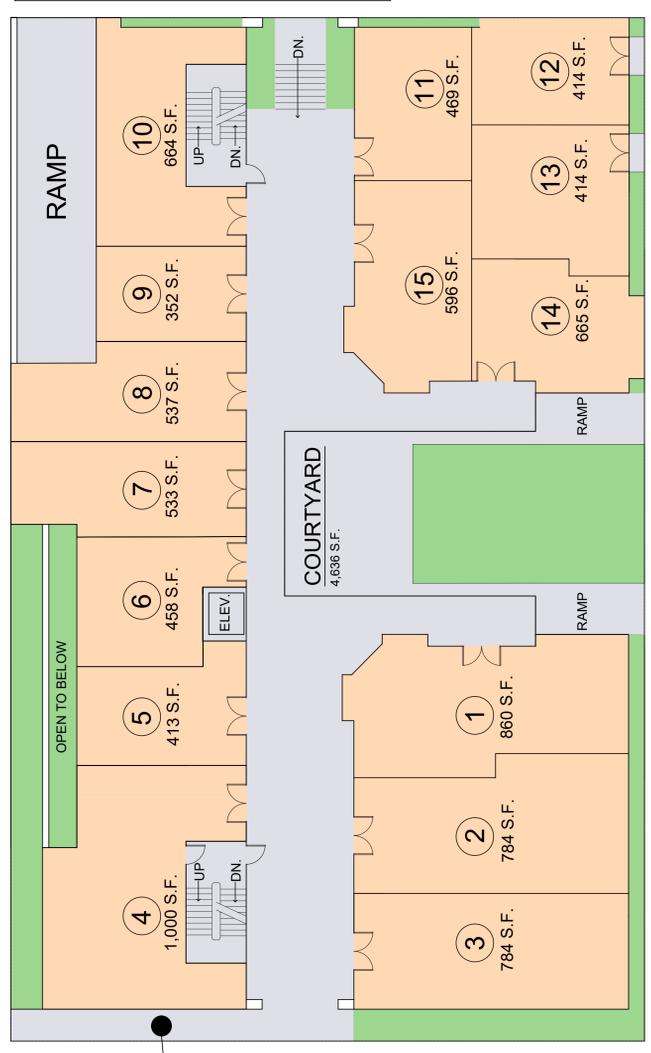
**MEZZANINE PLAN**  
 2,756 S.F.



**BASEMENT PLAN**  
 15,241 S.F.

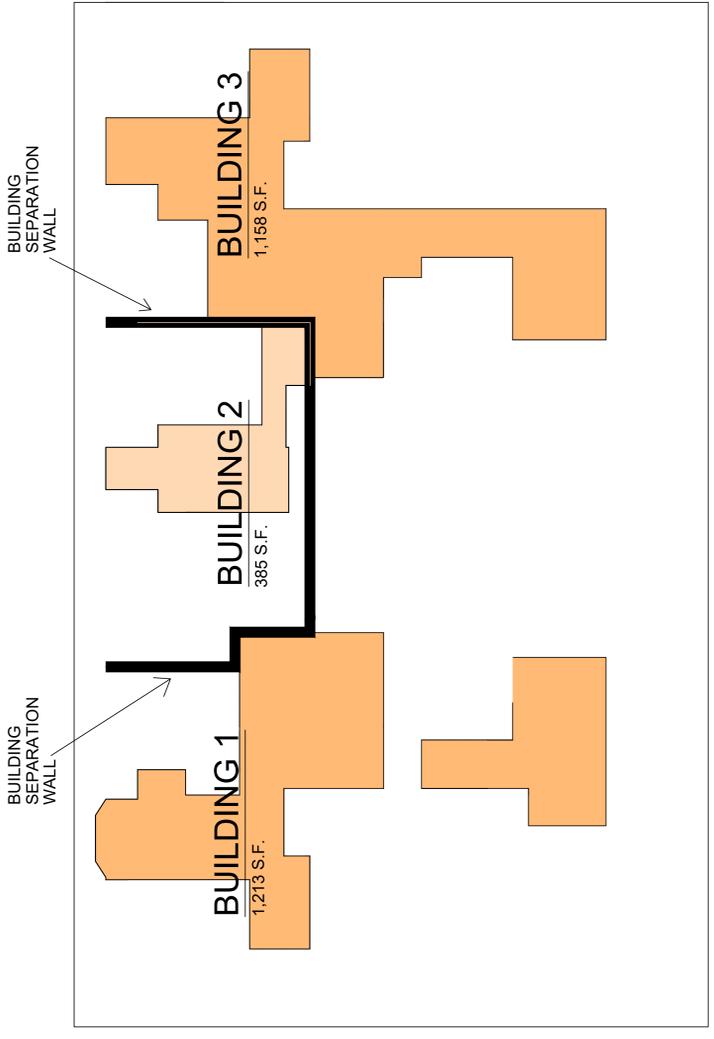


**SECOND FLOOR PLAN**  
 11,501 S.F.



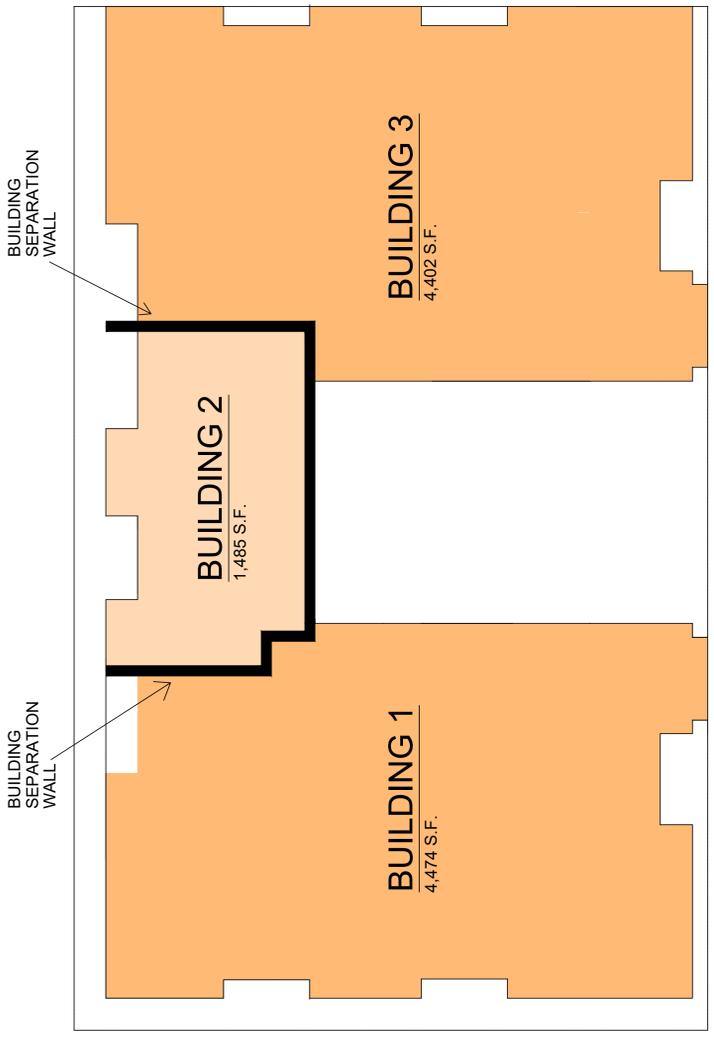
**FIRST FLOOR PLAN**  
 8,943 S.F.

**FAR**  
 16,000 SF PARCEL  
 16,000 SF x 145% = 23,200 SF  
 (INCLUDES 10% INTRA-BLOCK  
 WALKWAY BONUS)  
 FIRST FLOOR- 8,943 SF  
 SECOND FLOOR - 11,501 SF  
 MEZZANINE - 2,756 SF  
**TOTAL - 23,200 SF**

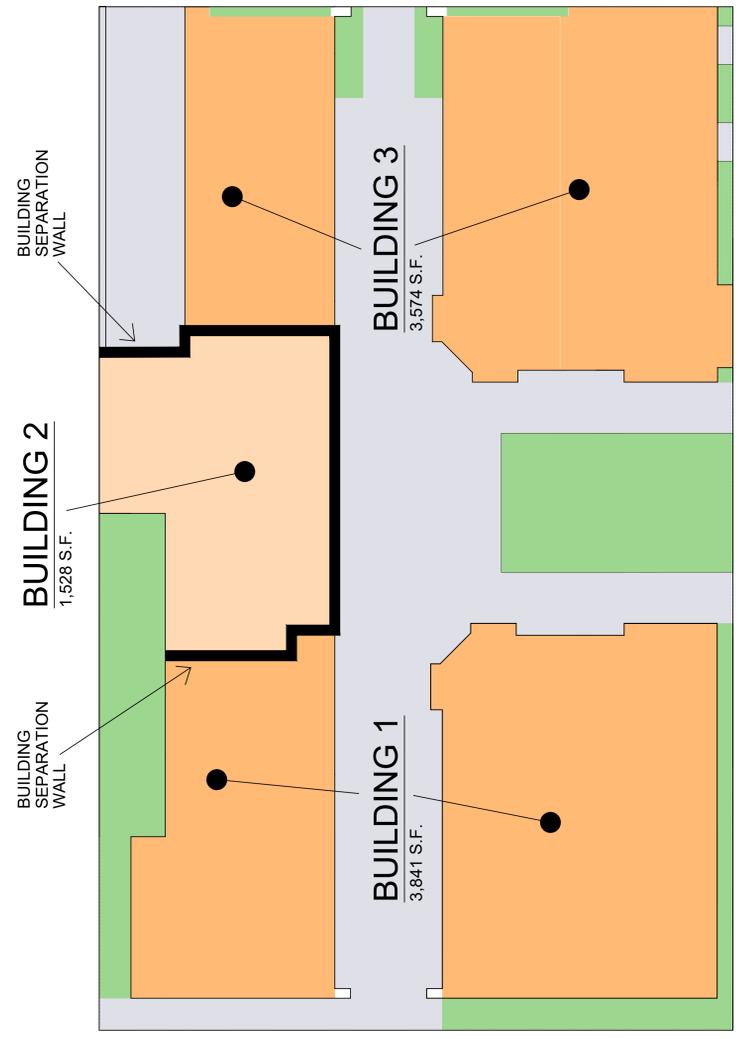


**MEZZANINE PLAN**

BUILDING AREAS	
BUILDING 1:	9,528 S.F.
BUILDING 2:	3,398 S.F.
BUILDING 3:	9,134 S.F.



**SECOND FLOOR PLAN**



**FIRST FLOOR PLAN**



PROJECT TRIP GENERATION RATES											
Land Uses	ITE LAND USE CODE	DAILY TRIP RATE	WEEKDAY								
			AM PEAK HOUR				PM PEAK HOUR				
			PEAK HOUR RATE	% OF ADT	% IN	% OUT	PEAK HOUR RATE	% OF ADT	% IN	% OUT	
1. Multi-Family Housing (per dwelling unit)	220	6.74	0.40	6%	24%	76%	0.51	8%	63%	37%	
2. Variety Store (per 1,000 sq. ft.)	814	63.66	3.04	5%	55%	45%	6.70	11%	51%	49%	
3. Fast Casual Restaurant (1,000 sq. ft.)	930	97.14	1.43	11%	50%	50%	12.55	13%	55%	45%	
4. Basement Storage Areas - Prorated to Variety Store and Restaurant	N.A.										

## PROJECT TRIP GENERATION

Previous Use - Variety Store											
Variety Store Gross Trips	8,000 sq. ft.	509	24	5%	13	11	54	11%	28	26	
Variety Store Net Trips (34% Passby)		336	16	5%	9	7	36	11%	18	17	

Proposed Project - Commercial/Residential Mixed Use											
PROPOSED USES	PROJECT SIZE	DAILY TRIPS	WEEKDAY								
			AM PEAK HOUR				PM PEAK HOUR				
			PEAK HOUR TRIPS	% OF ADT	% IN	% OUT	PEAK HOUR TRIPS	% OF ADT	% IN	% OUT	
<b>1. Multi-Family Housing (per dwelling unit)</b>											
a. Gross Trips	12 Units	81	5	6%	1	4	6	7%	4	2	
b. Net Trips (10% Internal)		73	4	5%	1	3	5	7%	3	2	
<b>2. Variety Stores - Units 1-3 and 5-15</b>											
a. Net Floor Area	7,943 sq. ft.										
b. Prorated Basement Ancillary Area	2,669 sq. ft.										
c. Gross Floor Area - Gross Trips	10,612 sq. ft.	676	32	5%	18	14	71	11%	36	35	
d. Gross Floor Area - Net Trips (34% Passby)		446	21	5%	12	9	47	11%	24	23	
<b>3. Fast Casual Restaurant - Unit 4</b>											
a. Net Floor Area	1,000 sq. ft.										
b. Outdoor Seating Area Allowance	500 sq.ft.										
b. Prorated Basement Ancillary Area	336 sq. ft.										
c. Gross Floor Area - Gross Trips	1,836 sq. ft.	178	3	2%	2	1	23	13%	13	10	
d. Gross Floor Area - Net Trips (43% Passby)		101	2	2%	1	1	13	13%	7	6	
<b>Proposed Project Total</b>											
a. Gross Trips	12,448 sq. ft.	935	40	4%	21	19	100	11%	53	47	
b. Net Trips		620	27	4%	14	13	65	10%	34	31	
<b>Proposed Project Increase Above Recent Project</b>											
a. Gross Trips		426	16	4%	8	8	46	11%	25	21	
b. Net Trips		284	11	4%	5	6	29	10%	16	14	

**Notes:**

1. Based on Project Site Plan dated February 22, 2022.
2. Trip generation rates are referenced from "Trip Generation Manual," Institute of Transportation Engineers (ITE), 11th Edition, 2021.
3. Passby rates are referenced from "Trip Generation Handbook," Institute of Transportation Engineers (ITE), 3rd Edition, 2017.
4. sq. ft. = square feet
5. Basement Storage Area - Prorated and added to Variety Stores and Fast Casual Restaurant Indoor Space to estimate gross floor areas: 3,050 sq. ft.