



July 18, 2024

Mr. Kian Malek
City Ventures
444 Spear Street, Suite 200
San Francisco, CA 94105

DRAFT Transportation Impact Study for the Auburn Grove Project

Dear Mr. Malek;

W-Trans has completed an evaluation of potential transportation impacts associated with the proposed Auburn Grove project to be located in the County of Marin. The purpose of this letter is to set forth the project’s trip generation and the results of our assessment of potential impacts under the California Environmental Quality Act (CEQA).

Project Description

We understand that the project as proposed includes a total of 79 homes comprised of 3-bedroom townhome-style condominiums, to be located on either side of Woodland Avenue between Bellam Boulevard and Auburn Street in Marin County. The project would consist of 16 buildings, totaling 3.29 acres of land as shown in the proposed site plan, a copy of which is enclosed for reference.

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 11th Edition, 2021, for “Single Family Attached Housing” (LU #215) as this description most closely matches the proposed project. Based on the application of these rates, the proposed project is expected to generate an average of 569 trips per day, including 38 a.m. peak hour trips and 45 trips during the p.m. peak hour. These results are summarized in Table 1.

Table 1 – Trip Generation Summary

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Single Family Housing	79 du	7.20	569	0.48	38	9	29	0.57	45	27	18

Note: du = dwelling unit

Trip Distribution

The pattern used to allocate new project trips to the street network was estimated based on knowledge of the local transportation system. The assumptions shown in Table 2 were applied.

Table 2 – Trip Distribution Assumptions

Route	Percent
To/from the east via Bellam Blvd	50
To/from the north via Anderson Dr	40
To/from the Woodland Dr	10
TOTAL	100

Transportation Facilities

The first transportation bullet point on the CEQA checklist relates to the potential for a project to conflict with a program, plan, ordinance, or policy addressing the circulation system, including pedestrian, bicycle, roadway, and transit facilities. The County of Marin has published a number of policies relative to facilities for pedestrians, bicyclists, and transit riders. The *Marin Countywide Plan, 2007*, contains the following policies and programs that are applicable to the project.

TR-2.1 Promote adequate bicycle and pedestrian links, to the extent feasible, throughout the county, including streetscape improvements and standards that are safe and pedestrian and bicycle friendly.

TR-2.2 Where appropriate, require new development to provide trails or roadways and paths for use by bicycles and/or on-street bicycle and pedestrian facilities.

TR-2.a Work with local community groups to encourage bicycling and walking for local trips by students, commuters, visitors, and shoppers through marketing and incentive programs, as well as improved facilities.

The *Marin County Unincorporated Area Bicycle and Pedestrian Master Plan, 2018*, contains the following action items.

When contemplating sidewalk improvements, the following should be considered:

- *Physical Condition.* The condition of many sidewalks needs to be improved. Tripping obstacles range from broken and hazardous sidewalk sections to overgrown shrubs and landscaping that block passage.
- *Accessibility.* Many intersections lack curb cuts and ramps for wheelchairs that meet current ADA guidelines. Additionally, sidewalks in some places need to be widened to provide an adequate and comfortable capacity for wheelchairs. As sidewalks are widened and made accessible by the introduction of ramps, utility poles, hydrants, and other street furniture need to be located to provide an accessible path of travel. Right-of-way constraints can make installation or widening of sidewalks infeasible without other measures, such as removing on-street parking to provide sufficient width to fit the sidewalk.
- *Connectivity.* One jurisdiction has noted that maintenance and improvements to existing urban trail systems would enable residents to make better use of these facilities and access transit stops for travel out of their community. Better connectivity in the framework of the pedestrian facilities can also foster a “sense of place” at town centers.
- Signage that makes existing amenities more available to pedestrians.
- Routes to schools.
- Accessibility to recreation.

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, there is limited connectivity within the

network of pedestrian facilities in the vicinity of the project on Woodland Avenue and Auburn Street. Existing gaps impact convenient and continuous access for pedestrians and may present safety concerns.

- **Woodland Avenue** – Short segments of the street have sidewalks, but they are not continuous or connected. The intersection with Auburn Street includes marked crosswalks and curb ramps on the northern side of the project site. At the southernmost intersection connecting to Bellam Boulevard there are no sidewalks, crosswalks, or ramps. Street lighting is minimal and discontinuous on both sides of the street as well.

The proposed project includes the construction of sidewalks along the property frontages on both sides of Woodland Avenue to the extents of the project area, as shown in the site plan. These sidewalks would provide additional access to existing facilities proximate to the project site. It is recommended that new streetlight fixtures be installed along the project frontage on Woodland Avenue. To further improve pedestrian connectivity, it is recommended that a marked crosswalk be installed on the eastern leg of the intersection of Woodland Avenue/Bellam Boulevard-Auburn Street to connect to the sidewalk on the south side of Bellam Boulevard-Auburn Street. The crosswalk installation should include curb ramps on the northeast and southeast corners to improve pedestrian accessibility. Installing a stop sign for the westbound right-turn movement is also recommended to reduce pedestrian conflicts with vehicles turning onto Woodland Avenue from Bellam Boulevard.

Additional consideration was given to the installation of a second marked crosswalk on the north leg of Woodland Avenue/Bellam Boulevard-Auburn Street, crossing Woodland Avenue. However, due to the lack of existing pedestrian infrastructure on the northwest corner of the intersection or sidewalks connecting to the corner on either Woodland Avenue or Auburn Street, additional crosswalks are not recommended at this time.

Finding – Existing pedestrian facilities are generally inadequate surrounding the project site; sidewalks are proposed along the project frontage on Woodland Avenue.

Recommendation – Street lighting fixtures should be provided along the project frontages on either side of Woodland Avenue. It is recommended that a marked crosswalk be installed on the east leg of Woodland Avenue/Bellam Boulevard-Auburn Street along with the provision of stop controls for the westbound right-turn movement.

Bicycle Facilities

The *Highway Design Manual*, Caltrans, 2019, classifies bikeways into four categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

In the project area, Class II bike lanes exist on Bellam Boulevard and Anderson Drive, and Class I bike paths are located northeast of the project site along the SMART Trail and Cal Park Hill Pathway. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project study area.

Table 3 summarizes the existing and planned bicycle facilities in the project vicinity, as contained in the *San Rafael Bicycle & Pedestrian Master Plan*, 2018 and *Marin Countywide Plan, 2014 Update*, 2023.

Table 3 – Bicycle Facility Summary

Status Facility	Class	Length (miles)	Begin Point	End Point
Existing				
SMART Trail	I	0.5	Rice Dr	Anderson Dr
Cal Park Hill Pathway	I	1.3	Anderson Dr	Sir Francis Drake Blvd
Shoreline Path	I	1.5	Canal St	Baypoint Village Dr
Anderson Drive	II	1.4	Francisco Blvd W	Sir Francis Drake Blvd
Bellam Boulevard	II/III	0.6	Anderson Dr	Playa Del Ray
Woodland Avenue	III	0.8	Harbor St	Sorrento Way
Canal Street	III	0.9	Picnic Ave	Auburn St
Planned				
Francisco Boulevard	II	3.0	Grand Ave	Main St
Bellam Boulevard	IV	0.8	Anderson Dr	Baypoint Dr
Canal Street	IV	0.9	Picnic Ave	Auburn St
Kerner Boulevard	IV	1.6	Canal St	Francisco Blvd E

Source: *San Rafael Bicycle & Pedestrian Master Plan, 2018; Marin Countywide Plan, 2023; Google Maps, 2024.*

Bicycle Storage

Marin County does not require bike parking spaces for residential projects, and the site plan does not include any proposed bike storage space. It is assumed that because each housing unit would have a private two-car garage which could be used for bike storage, no supplemental bicycle parking is required.

Finding – The existing and proposed bicycle facilities combined with use of local streets would be adequate to serve site-generated bicycle trips, and the project would not affect existing or planned bicycle facilities in the area.

Transit Facilities

Marin Transit and Golden Gate Transit provide regional public transit service within Marin County and between surrounding communities. Two or three bicycles can be carried on most buses. Bike rack space is on a first come, first served basis. Existing transit routes and their operations details are summarized in Table 4 based on information available on each carrier's website.

Table 4 – Transit Routes

Transit Agency Route	Distance to Stop (mi) ¹	Service			Connections
		Days of Operation	Time	Frequency	
Marin Transit					
Route 23	0.50	Mon – Fri Sat – Sun	6 a.m. – 11 p.m. 7 a.m. – 10 p.m.	30 min – 1 hr 1 hr	Downtown San Rafael, San Anselmo, Marin Museum of Bicycling
Route 35	0.40	Mon – Fri Sat – Sun	5 a.m. – 2:30 a.m. 5 a.m. – 2:30 a.m.	30 min 30 min	Downtown San Rafael, Civic Center SMART, San Rafael Transit Center
Route 36	0.40	Mon – Fri Sat – Sun	6 a.m. – 8 p.m. 7 a.m. – 6:30 p.m.	30 min 30 min	San Rafael SMART, Marin City Hub, San Rafael Transit Center
Golden Gate Transit					
Route 130	0.30	Mon – Fri Sat – Sun	5 a.m. – 12:30 a.m. 5 a.m. – 12:30 a.m.	1 hr 1 hr	San Rafael Transit Center, San Francisco Civic Center, Salesforce Transit Center
Route 580/580X	0.10	Mon – Fri Sat – Sun	5:45 a.m. – 10 p.m. 6:15 a.m. – 10 p.m.	30 min – 1 hr 1 hr	San Rafael Transit Center, San Quentin Village, Richmond, El Cerrito BART

Note: ¹ Defined as the shortest walking distance between the project site and the nearest bus stop.

Source: <https://marintransit.org>; <https://www.goldengate.org>

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. Paratransit is provided by Marin Transit and is designed to serve the needs of individuals with disabilities within the County of Marin.

Finding – Existing transit facilities in the vicinity of the project are adequate to serve trips to and from the project site.

Significance Finding – The proposed project does not conflict with any programs, plans, ordinances, or policies relative to the circulation system for pedestrians, bicycles, and transit riders, and so would have a less-than-significant impact on these facilities.

Vehicle Miles Traveled (VMT)

The potential for the project to conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b) was evaluated based the project's anticipated Vehicle Miles Traveled (VMT).

Consideration was given to the project's potential generation of VMT using guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018. Guidance provided in this document with respect to assessing VMT for residential projects is that a project's generation of VMT that is 15 or more percent below the existing regional residential VMT per capita may indicate a less-than-significant transportation impact.

This premise was tested by obtaining data from the recently updated Transportation Authority of Marin Demand Model (TAMDM) maintained by TAM, as well as background model data prepared by Fehr & Peers for TAM during development of the model. Unincorporated areas within the County of Marin have a baseline residential VMT of 15.8 miles per resident. Based on OPR guidance, a project generating a VMT that is 15 percent or more below this value, or 13.4 miles per resident or less, would have a less-than-significant VMT impact. The TAMDM model includes traffic analysis zones (TAZ) covering geographic areas throughout Marin County, including 1,400 Micro

Analysis Zones (MAZ) for which VMT characteristics are estimated. The project site is located within MAZ 800,001, which has a VMT per capita of 9.60 miles. Because this per capita VMT ratio is below the OPR-based significance threshold of 13.4 miles, the project would be considered to have a less-than-significant VMT impact. A summary of the VMT findings is provided in Table 5.

Table 5 – Vehicle Miles Traveled Analysis Summary

VMT Metric	Baseline VMT Rate	Significance Threshold	Project VMT Rate	Resulting Significance
Residential VMT per Capita (Unincorporated Countywide Baseline)	15.8	13.4	9.60	Less than significant

Note: VMT Rate is measured in VMT/Capita, or the number of daily miles driven per resident

Significance Finding – The project would be expected to generate a VMT that is more than 15 percent below the County’s residential baseline VMT; as such, it would screen out from quantitative analysis and have a less-than-significant impact on VMT.

Site Access and Safety

The potential for the project to impact safety was evaluated in terms of the adequacy of sight distance and need for turn lanes at the project access points. This section addresses the third transportation bullet on the CEQA checklist which is whether the project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Although sight distance criteria do not technically apply to driveways and alleys, adequacy of stopping sight distance was evaluated as a safety consideration. Sight distances along Woodland Avenue at the 12 proposed project driveway locations, which would lead to the proposed alleys and interior drive aisles, were evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans with the approach travel speeds used as the basis for determining the recommended sight distance. Additionally, the stopping sight distance needed for a following driver to stop if there is a vehicle waiting to turn into a side street or driveway was evaluated based on stopping sight distance criterion and the approach speed on the major street.

Sight distances at the proposed driveways were field measured. A brief speed survey was conducted in July 2024; results indicate that the posted 25 mph speed limit generally reflects measured vehicle speeds. Based on this design speed of 25 mph, the minimum stopping sight distance needed is 150 feet.

Sight distances are adequate in both directions along Woodland Avenue for all twelve proposed driveways. However, due to the proximity of Building 8 to the corner of Woodland Avenue/Auburn Street and the angle of the intersection, the potential for approach speeds to exceed 25 mph was considered. Because the angle is obtuse, which accommodates higher speeds for turning movements than would be typical where the streets intersect at a right angle, drivers may be approaching at speeds in excess of 25 mph, resulting in inadequate visibility. As noted above, it is recommended that the westbound right-turn movement be converted to be stop-controlled, resulting in all-way stop controls at the intersection of Woodland Avenue/ Bellam Boulevard-Auburn Street in lieu of the current non-standard configuration wherein the westbound right turn is the only uncontrolled movement. The stop bar for this approach would be replaced by the recommended crosswalk between the northeast and southeast corners of the intersection. Sight distance from a driver’s stopped position behind the crosswalk would be adequate, as clear visibility would be provided looking north on Woodland Avenue.

Similarly, sight lines along Woodland Avenue are adequate for a following driver to observe and react to a vehicle in front of them slowing or stopping to turn into any of the twelve driveways.

To maintain roadway visibility, any proposed foliage which may obstruct driver sightlines should be designed and maintained so that any hanging branches are at least seven feet above the road surface, and bushes or shrubs are limited to a height of three feet.

Significance Finding – The sight distances at all project driveways are adequate, assuming drivers travel at the posted speed limit. However, given the angle of the intersection between westbound Bellam Boulevard and northbound Woodland Avenue, drivers may be traveling in excess of 25 mph.

Recommendation – It is recommended that the right-turn movement from Bellam Boulevard onto Woodland Avenue be stop-controlled.

Significance after Mitigation – By installing a stop sign, drivers making a westbound right turn would be required to stop, therefore resulting in lower speeds and adequate sight distance. The proposed project is not expected to create any new potential hazards or introduce incompatible uses to the roadway system. Therefore, its impact on safety would be less than significant.

Emergency Response

The final transportation bullet on the CEQA checklist requires an evaluation as to whether the project would result in inadequate emergency access.

The project would include 24-foot-wide drive aisles and one 28-foot-wide drive aisle (Alley I) between the proposed residences fronting Woodland Avenue, which has a 40-foot curb-to-curb width. The *Strategic Fire Plan for Marin County*, Marin County Fire Department, 2012, states that roadways under 20 feet in width or with dead-ends longer than 150 feet present hazardous conditions in terms of fire access and protection. The existing and proposed roadways are or will be more than 20 feet in width and all proposed dead-end alleys are less than 90 feet long. The site's roadway network is therefore in compliance with the County's Strategic Fire Plan, providing adequate access and circulation for emergency response vehicles.

The project would also be expected to add vehicle trips to Woodland Avenue, but emergency response vehicles can claim the right-of-way by using their lights and sirens; therefore, the project would be expected to have a nominal effect on emergency response times.

Significance Finding – The project as proposed would be in compliance with County fire policies and would provide adequate site access and circulation for emergency vehicles, resulting in a less-than-significant impact on emergency response.

Conclusions and Recommendations

- The proposed project would be expected to generate an average of 569 trips per day, including 38 trips during the morning peak hour and 45 during the evening peak hour.
- The project would not conflict with policies relative to facilities for pedestrians, bicycles, and transit, so would have a less-than-significant impact on these facilities. However, to provide adequate pedestrian access it is recommended that streetlighting be provided on Woodland Avenue along the project's frontage and that a marked crossing be installed on the east leg at Woodland Avenue/Bellam Boulevard-Auburn Street.
- The project's impact on vehicle miles traveled would be less than significant as it is anticipated to generate a VMT per capita that is more than 15 percent below the County's defined residential VMT baseline.

- The project would not introduce any potential hazards and would have a less-than-significant impact on safety.
- Sight distance should be maintained at the proposed project driveways by ensuring that foliage is trimmed to less than three feet in height and trees trimmed to more than seven feet above the pavement within the sight triangle at each driveway.
- It is recommended that stop controls be provided on the westbound right-turn to improve pedestrian safety, reduce speeds to maintain adequate sight distance for drivers, and eliminate what is currently a non-standard control configuration.
- The site would adequately accommodate emergency response vehicles and would have a less-than-significant impact on emergency response.

Thank you for giving us the opportunity to provide these services.

Sincerely,

Joseph J. Faria-Poynter, EIT
Assistant Traffic Engineer

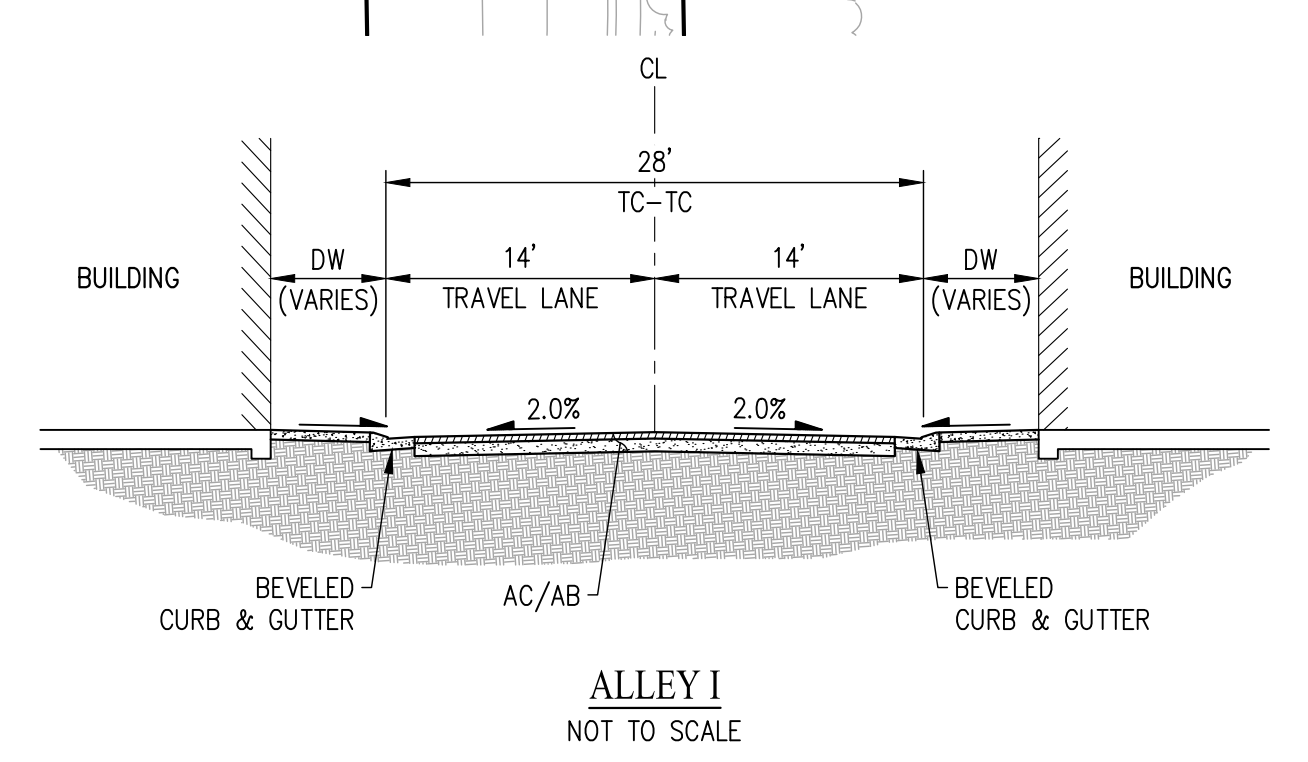
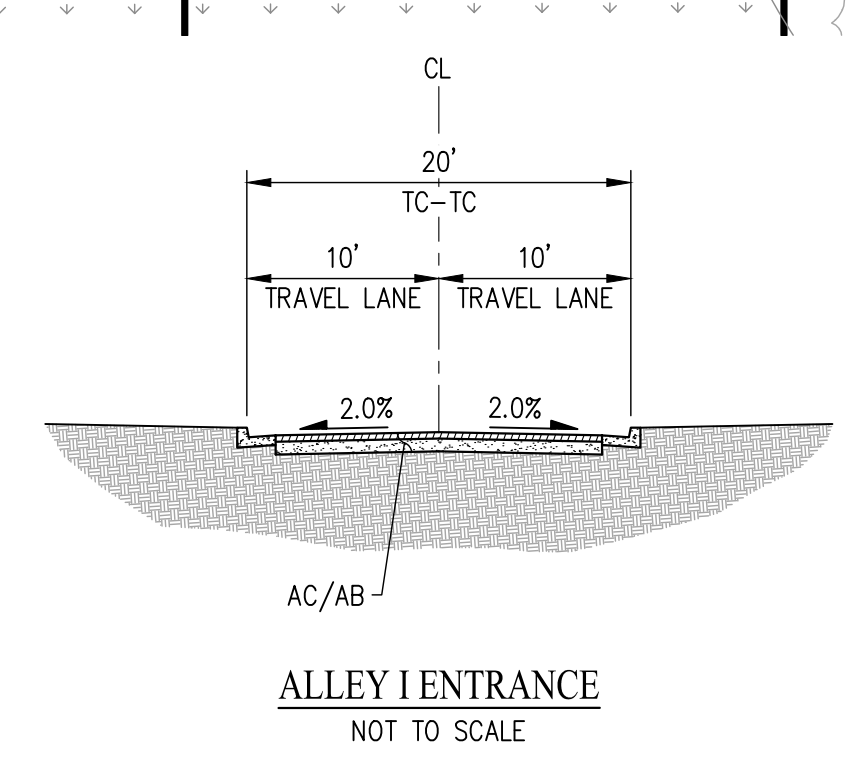
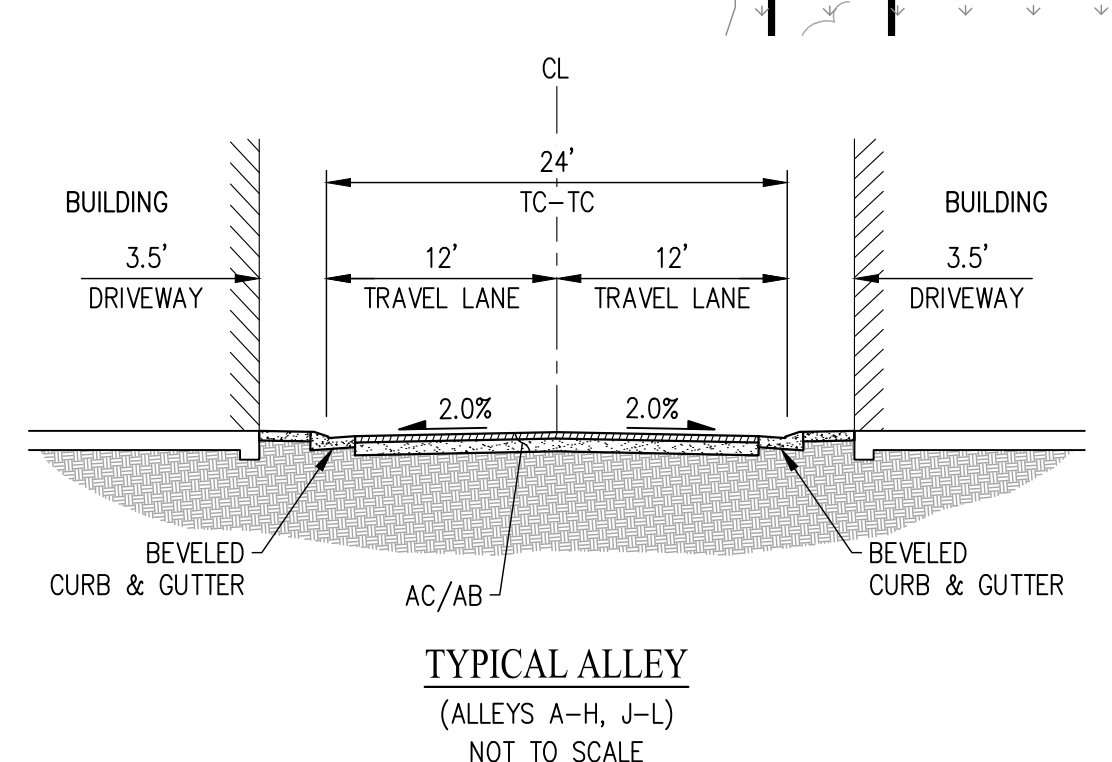
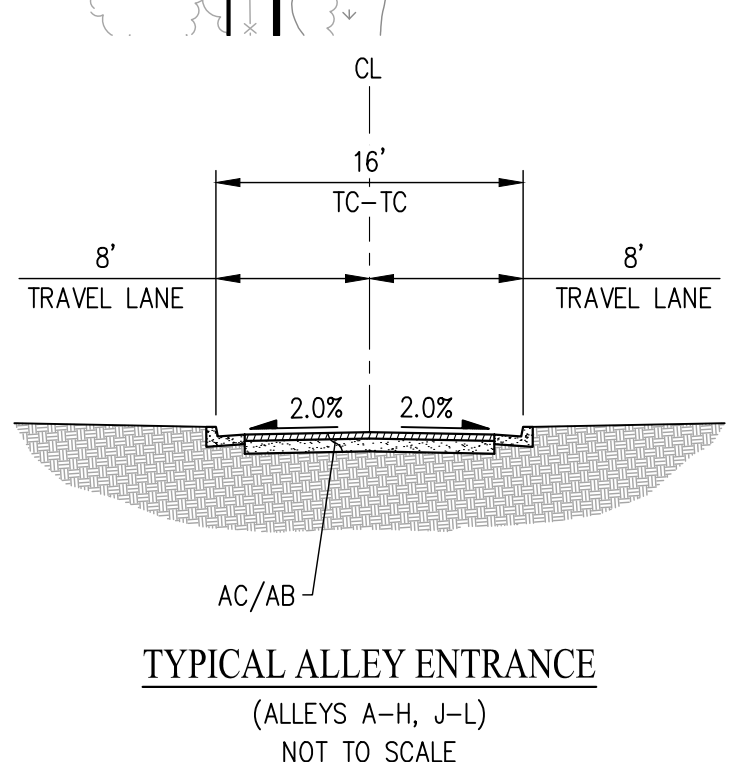
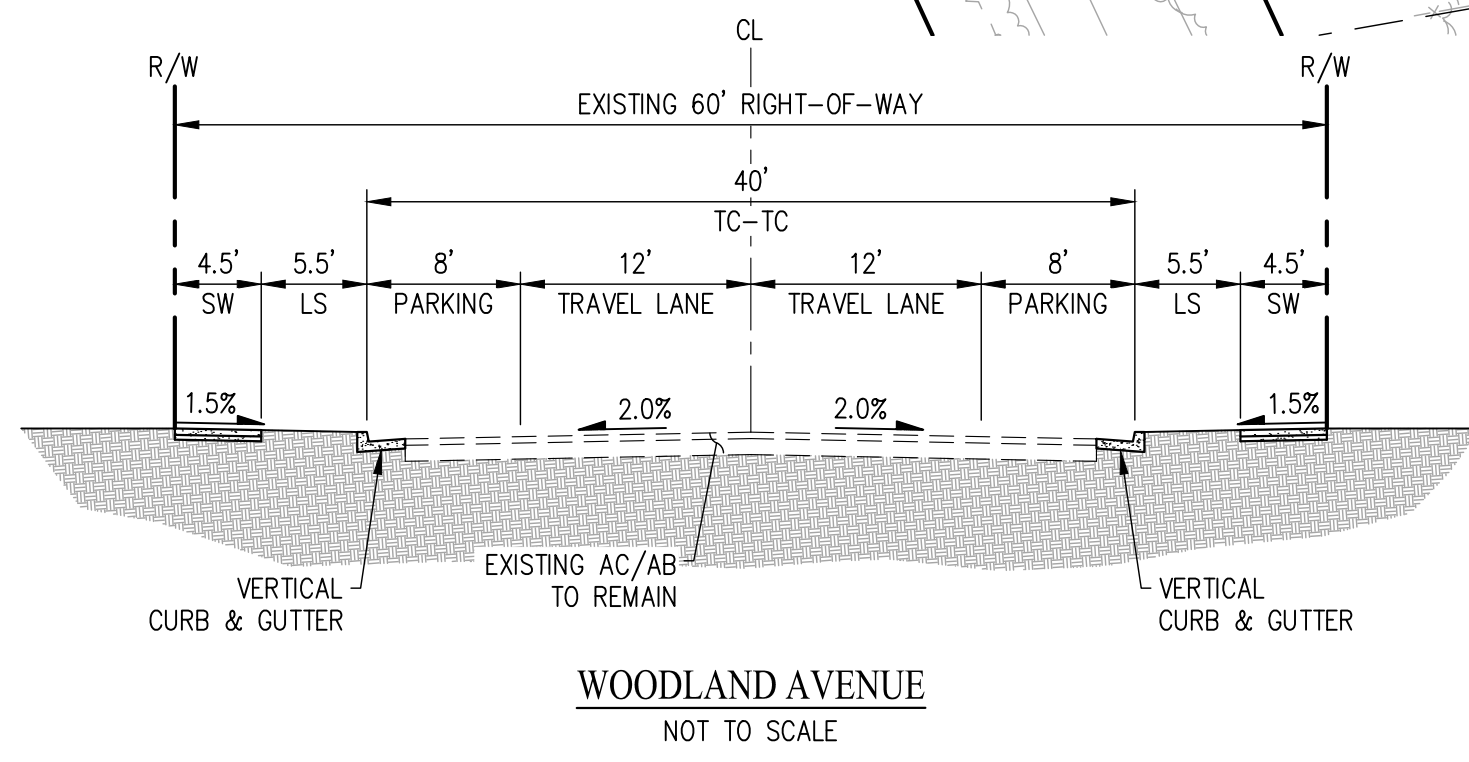
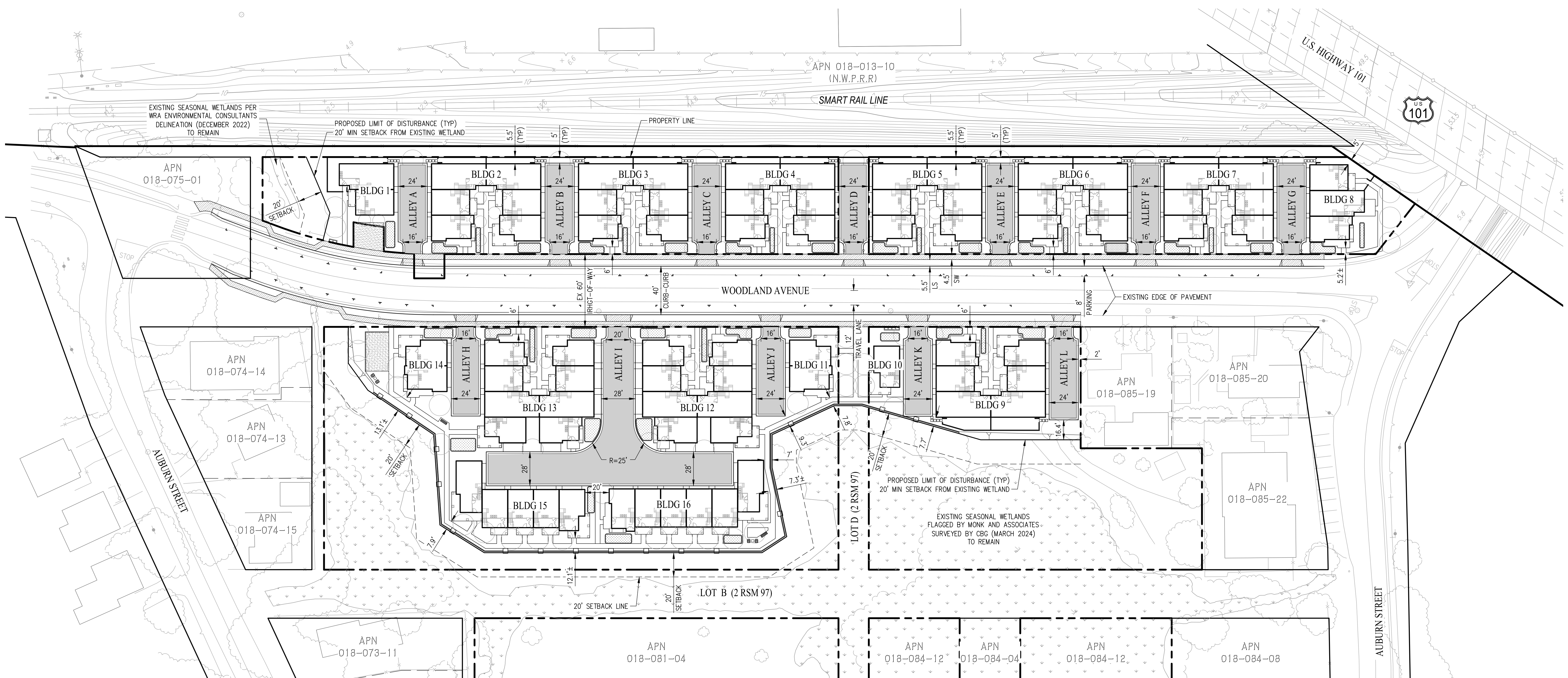
Dalene J. Whitlock, PE (Civil, Traffic), PTOE
Senior Principal

DJW/jfp/MAX160.L1

Enclosure: Site Plan



ILLUSTRATIVE SITE PLAN



OVERALL SITE PLAN

