BANNISTER Avenue

pedestrian safety analysis

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INTRODUCTION and PROJECT UNDERSTANDING

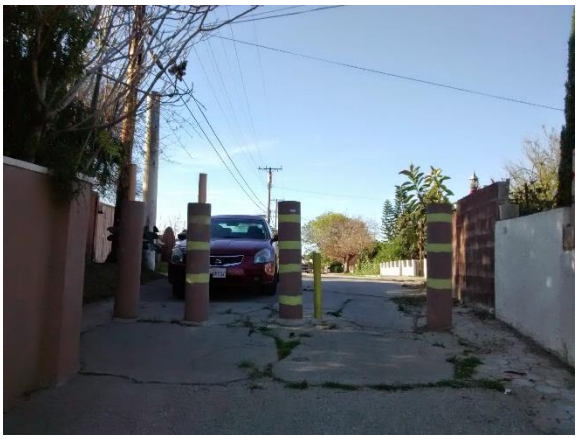
BANNISTER Avenue

The purpose of this study is to provide an analysis of the cumulative impacts that the proposed 22-unit residential development will have on the surrounding area. This analysis is being provided in an effort to address the concerns expressed by nearby property owners that the proposed development will have a negative impact on the neighborhood, primarily due to an increase in vehicular traffic.

El Monte Homes, LLC submitted applications to the City of El Monte Planning Division for Tentative Tract Map No. 72192 for the development of 22 detached single-family residences along the west side of the San Gabriel River in the northeastern section of the City.

The project site is located on a 3.16-acre parcel between Bannister Avenue and the San Gabriel River. The site is primarily vacant, but is developed with some ancillary structures. The site is bounded by single-family residences to the north and south; the San Gabriel River and River Trail to the east; and single-family residences and Bannister Avenue to the west.

Vehicular access to the site will be provided by a new driveway on the east side of Bannister Avenue, which would become a private street/cul-de-sac at 26 feet in width. The project driveway and private street/cul-de-sac are designed to meet the City's design standards.

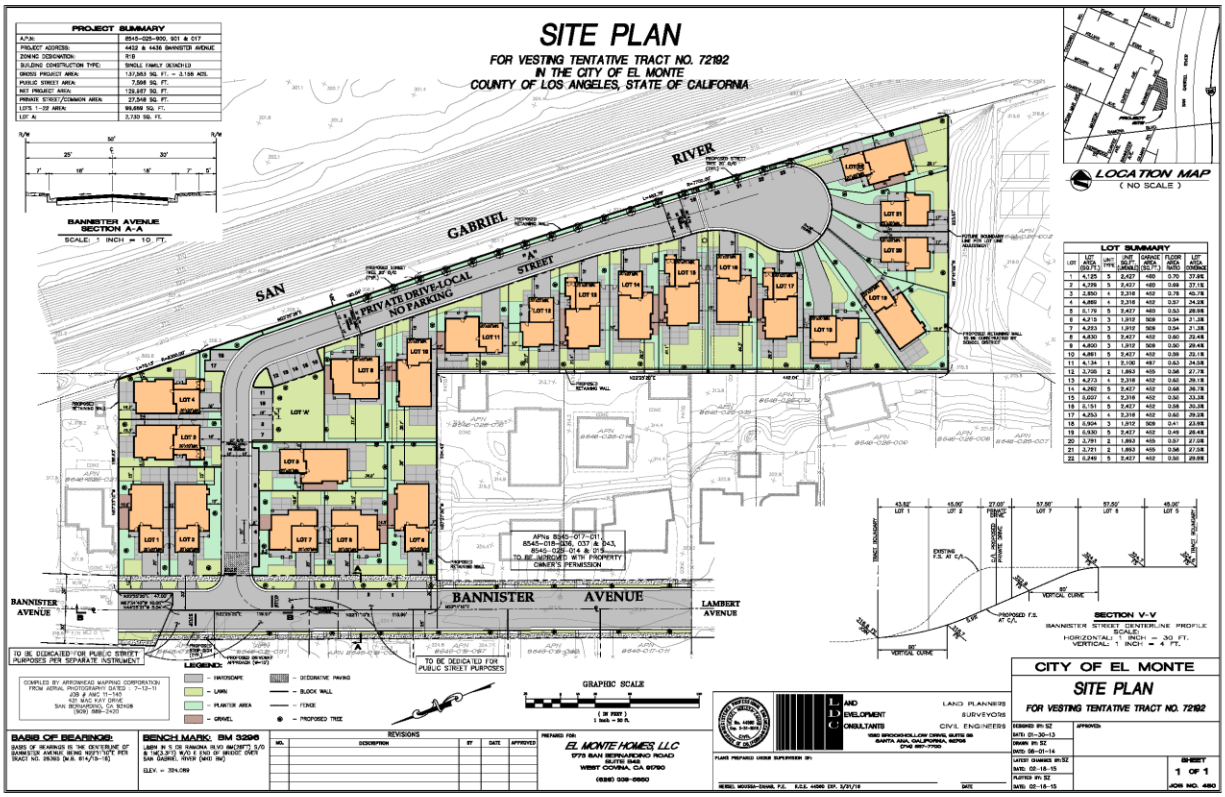


In addition to the proposed medium-density residential development, the project also entails the removal of the existing vehicle barrier (bollards) on Bannister Avenue, located approximately 425 feet south of Star Street, and adjacent to the proposed entrance of the single-family residences. Currently, this barrier allows for pedestrian and bicycle through movements, but not vehicular movements.

Currently, there are continuous sidewalks along both sides of Bannister Avenue, north of the vehicle barrier to Durfee Elementary School.

However, the sidewalks along both sides of Bannister Avenue (south of the vehicle barrier) are intermittent, except for an approximately 330-foot segment from the project driveway, south to where the existing sidewalks terminate. The proposed project would construct sidewalks on both sides of the street to connect with the project entrance and the location of the existing vehicular barrier. The new sidewalks are designed to meet the City's design standards.

Additionally, there are existing sidewalks on both sides of Maxson Road for the entire length of the street. There is an existing signalized intersection at Maxson Road and Ramona Boulevard with pedestrian phases. Currently, Lower Azusa Road, Cogswell Road, and Ranchito Street are designated as Class III Bike Boulevards. There are also connections to the adjacent San Gabriel River Trail near Star Street (at Durfee Elementary School) and on Ramona Boulevard. The San Gabriel River Trail provides regional pedestrian and bicycle access along the west side of the San Gabriel River.



PEDESTRIAN and BICYCLE COUNTS

BANNISTER Avenue

On March 5, 2015, Evan Brooks Associates conducted pedestrian and bicycle counts at Durfee Elementary School during the morning drop-off and afternoon pick-up periods. The following information was obtained:

7:00-8:00 AM

PEDESTRIANS

	Standell Avenue	Bannister Avenue
Students	4	5
Parents	1	2

BICYCLE

	Standell Avenue	Bannister Avenue
Students	0	1
Parents	0	1

A total of 9 students walked to school from the surrounding neighborhood. Five students (2 of which walked with a parent) walked through the barrier on Bannister Ave. and two students walked from their homes on Standell Ave. All other pedestrians/students were those who were dropped off by a vehicle. One student accompanied by a parent, rode their bikes through the barrier.

2:00-3:00 PM

PEDESTRIANS

	Standell Avenue	Bannister Avenue
Students	3	3
Parents	0	1

BICYCLE

	Standell Avenue	Bannister Avenue
Students	0	0
Parents	0	0

A total of 6 students walked home from school and traveled along either Bannister Ave. or Standell Ave.

BANNISTER *Avenue*

OBSERVATIONS

The following detailed observations provide a sample of pedestrian and vehicle activity during peak hour student drop-off and pick-up at Durfee Elementary School.

7:00-8:00 AM

Morning Activity

7:00 – There are vehicles parked in the teachers' parking lot.

7:08 – First vehicle makes a U-turn at Star Street and Standell Avenue to drop off student at curbside drop-off area on Star Street.

7:09 – An SUV makes a three-point turn to drop off student at curbside drop-off area on Star Street.

Star Street

7:19 to 8:00 – Vehicles start arriving to teachers' parking lot.

7:20 to 8:00 – Vehicles start arriving to drop off students at on-site student drop-off zone.

7:21 to 8:00 – Vehicles make U-turns at Star Street and Standell Avenue to drop off students at curbside drop-off area on Star Street.

7:56 – On-site student drop-off zone gets full and newly arriving vehicles make U-turns at Star Street and Standell Avenue.

Bannister Avenue

7:30 – One student walks through vehicle barrier (bollards) on Bannister Avenue to school site.

7:38 – Parent walks one student from homes located along the north side of Bannister Avenue to school site.

7:43 – One student walks through vehicle barrier (bollards) on Bannister Avenue to school site.

7:48 – Parent and student ride bikes through vehicle barrier (bollards) on Bannister Avenue to school site.

7:53 – Parent parks vehicle on south side of vehicle barrier (bollards) on Bannister Avenue and walks two students to school site.

Standell Avenue

7:35 – Two students walking to school site from homes located along Standell Avenue have trouble crossing Star Street.

7:40 – Parent walks two students from homes located along Standell Avenue to school site.

GENERAL OBSERVATIONS

Parents prefer to drop off students at curbside drop-off area or middle of the street to avoid driving through the on-site student drop-off zone.

On-site student drop-off zone gets full and triggers newly arriving vehicles to make U-turns at Star Street and Standell Avenue.

Parents make U-turns at Star Street and Standell Avenue, subsequently creating a dangerous situation for students crossing the street and vehicles entering and exiting the on-site student drop-off zone and teachers' parking lot.

Parents will park their vehicles on the south side of the vehicle barrier (bollards) on Bannister Avenue and walk students approximately ¼ mile to the school site.

2:00-3:00 PM

Afternoon Activity

2:00 – There are vehicles parked and waiting at curbside pick-up area along Star Street.

2:03 to 3:00 – Vehicles make U-turns at Star Street and Standell Avenue to park and wait at curbside pick-up area along Star Street.

2:15 – School bus makes a three-point turn on Star Street by backing up to Standell Avenue.

Star Street

2:19 to 3:00 – Vehicles start to leave the teachers' parking lot.

2:00 to 3:00 – Vehicles arrive to pick up students at on-site student pick-up zone.

2:00 to 3:00 – Vehicles make U-turns at Star Street and Standell Avenue to pick up students at curbside pick-up area on Star Street, subsequently creating a dangerous situation for students crossing the street and vehicles entering the curbside pick-up area.

2:15 – School bus makes a three-point turn on Star Street by backing up to Standell Avenue.

Bannister Avenue

2:26 – One student walks home through vehicle barrier (bollards) on Bannister Avenue.

2:29 – Parent walks one student home located along the north side of the barrier on Bannister Avenue.

2:35 – One student walks home through vehicle barrier (bollards) on Bannister Avenue.

Standell Avenue

2:35 – Two students walk to home located along Standell Avenue.

2:40 – One student walks to home located along Standell Avenue.

GENERAL OBSERVATIONS

Parents wait for students at curbside pick-up area (on both north and south side of Star St.) to avoid driving through the student pick-up zone, subsequently creating a dangerous situation for students crossing the street and vehicles entering and exiting the student pick-up zone.

School bus cannot maneuver into school parking lot and makes a three-point turn on Star Street by backing up to Standell Avenue, subsequently creating a dangerous situation for students crossing the street and vehicles entering and exiting the on-site student pick-up zone.

Vehicles make U-turns at Star Street and Standell Avenue in order to park and wait at curbside pick-up area along Star Street. Parents like to wait for students at curbside pick-up area to avoid driving through the on-site student pick-up zone.

BANNISTER Avenue

COMPLETE STREETS

Streets are a vital part of livable, attractive communities. Everyone, regardless of age, ability, income, race, or ethnicity, is entitled to have safe, comfortable, and convenient access to community destinations and public places, whether they choose to walk, drive, bicycle, or take public transportation. Bannister Avenue, in its current condition, is NOT considered a Complete Street.

According to the National Complete Street Coalition, Complete Streets create more choices, shorten travel times, and encourage less carbon-intensive transportation. When an entire right-of-way is planned, designed, and operated, safe access is provided to all users. A Complete Street ensures that the entire right-of-way is planned, designed, and operated to provide safe access for all users. The following facts provided by Smart Growth America identify the benefits that a Complete Street has on a community.

Complete Streets Are Connected Streets

Well-designed, connected streets make travel more efficient by providing choices, not only in modes, but also in routes. Pedestrians and public transportation riders are especially motivated to find direct routes to their destinations or transit stops, and prefer lower-traffic streets. Each street type emphasizes different mixes of modes, but is designed with all potential travelers in mind.

In a complete network, short, local trips can be taken without burdening the arterial systems with more cars. Roads in sprawling communities see up to 75 percent more travel demand on those arterials than similar arterials in connected networks. People with a complete, connected network of options may opt to reach their destinations entirely without driving on arterials, or will instead walk, bike, or take public transportation. One study found that single-family households located in a network of Complete Streets made a similar number of total trips as those in an incomplete network, but made significantly fewer trips by car, instead opting to walk.

Connectivity Improves Safety

Grid networks help create a safer road system. A study of 24 medium-sized California cities found that the least safe cities were those built more recently with unconnected networks that concentrated auto traffic on a few roads and featured fewer intersections. The more grid-like street networks saw fewer fatal or severe crashes. Grid networks do not need to rely on overly-wide roads and have more intersections, lowering drivers' speeds. Yet travel times remain comparable to the conventional network because trip distances are shorter – the routes are more direct – and because timed traffic signals can provide a consistent speed. Pedestrians benefit from additional signalized, safe crossing opportunities at intersections, while people both on foot and bike benefit from the slower vehicular speeds. Emergency service personnel are able to reach emergency sites more quickly due to the redundancy of the network. A study

in Charlotte, North Carolina found that as street connectivity increased, a fire station could reach far more households, and more quickly.

Increase Connectivity with Complete Streets

Some jurisdictions with Complete Streets policies have included provisions specifically to increase connectivity. For example, Virginia's Complete Streets policy was augmented by a new policy to end maintenance support for new streets that end in cul-de-sacs. Other communities have required new developments to connect into the existing grid in multiple locations. Some built-out communities with a sprawling road system have looked for opportunities to create more non-motorized connections by installing paths that connect cul-de-sacs and other disconnected streets to nearby roads. Even when roads are connected, there may still be a need for connected grids of walking and bicycling networks. The incorporation of Complete Streets into all of Seattle, Washington's plans helps to identify gaps in the network for different modes and prioritizes investment to create complete networks for all modes.

Incomplete streets put people at risk

Streets without safe places to walk, cross, catch a bus, or bicycle put people at risk. Over 5,000 pedestrians and bicyclists died on U.S. roads in 2008, and more than 120,000 were injured. Pedestrian crashes are more than twice as likely to occur in places without sidewalks; streets with sidewalks on both sides have the fewest crashes.

Complete Streets help reduce crashes

Complete Streets reduce crashes through comprehensive safety improvements. Measures that design the street with pedestrians in mind – sidewalks, raised medians, better bus stop placement, traffic-calming measures, and treatments for disabled travelers – all improve pedestrian safety.

Incomplete streets: a barrier for children

When streets are designed only for cars, they become barriers for children, who cannot safely walk or bicycle along or across them. Unfortunately these safety fears are well-founded – pedestrian injury is a leading cause of unintentional, injury-related death among children aged 5 to 14.

The lack of Complete Streets is perhaps best illustrated by hazard busing for schoolchildren. In Illinois, 15 percent of students who ride the bus to school do so because it is considered too dangerous to walk from home, less than 1.5 miles away.

Complete Streets give children safety, mobility

Complete Streets provide children with opportunities to walk, bike, and play in a safe environment. More children are likely to walk or bike to school when sidewalks or footpaths are present, when there are safe street crossings, and when school zones enforce a reduced vehicle speed. Streets that provide dedicated space for bicycling and walking help kids get physical activity and gain independence.

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STRATEGIES and RECOMMENDATIONS

Based on the analysis, it is clear that the safety of all users is compromised by the lack of effective circulation due to the presence of the barrier. Motorists are engaging in unsafe vehicular movements contributed by the lack of a through street.

With the vehicle barrier (bollards) removed, all traffic (vehicular, pedestrian, and bicycle) will be able to travel through Bannister Avenue between Star Street and Lambert Avenue. The improvement will allow for additional circulation options for residents of the proposed project, existing residents on Bannister Avenue, and traffic related to Durfee Elementary School, located north of the project site. Additionally, the improvements will improve access for emergency responders, improve the aesthetics of the community, and increase property values.

This project's investment to provide safe, continuous sidewalks where they currently don't exist considers the needs of all pedestrians, especially the children walking to and from school. Roads near schools and in residential neighborhoods are designed and altered to allow children, the most vulnerable users of our streets, to travel safely.

The installation of new curbs, gutters, and sidewalks will complete the street and result in a safer environment for all modes of travel, specifically for pedestrians and students walking to and from school.

Once these improvements are in place, school officials may want to consider reevaluating circulation procedures for the drop-off and pick-up of students.