a walkable & bikeable street proposal
Background

Serving as an arterial road, Reseda Boulevard extends the entire stretch of the San Fernando Valley. This primary Boulevard intersects with two freeways that are approximately six miles away from each other; the Ronald Reagan Fwy (118) to the north and the Ventura Fwy (101) to the south. The selection of the project scope is a 1.5 mile stretch of Reseda Boulevard that runs parallel to the California State University Northridge (CSUN) campus. CSUN is known to be a commuter school with high vehicular congestion around campus, especially on Reseda Boulevard. With cars being the dominant factor at the site, walkability and bikeability is minimal as certain characteristics discourage such activities.

Collaborating with the District 12 Councilmember's office, the prospect of this project is to provide recommendations that can encourage walkability and bikeability on Reseda Boulevard.

Purpose

The purpose of this project was to analyze elements at the site that encourage/discourage individuals to walk and bike. After analyzing the collected data, recommendations (design guidelines) were developed to help promote walkability and bikeability on Reseda Boulevard. These guidelines provide solutions to inadequate elements that inhibit walking and biking and further encourage elements that already foster walking and biking.
Two methods of data collection were exercised in this study. The first was a questionnaire that was administered to individuals walking on or near Reseda Boulevard (map 1). The second was observation which allowed for groups of two students to analyze a specific element. The combination of both allowed for objective evaluations and understanding individuals’ perception of the existing conditions. After documenting what individuals liked and disliked about the existing conditions and combining the thorough site analysis observations, design guidelines were prepared.

**Questionnaires**

With 35 student researchers, each student was designated a specific location at the site (map 1). The questionnaire consisted of six questions which were asked to individuals only if a ‘yes’ answer was provided for question number one; do you live/work/go to school in Northridge or Reseda? This was the case so that responses collected were those of individuals with daily contact with the site. Questions two and three asked the respondent to provide what the two best and two worst characteristics of sidewalks and crosswalks were. Question four, five, and six asked the frequency for which each activity was performed: walk, ride a bike or skateboard, and take public transit.

**Questionnaire Outcomes**

The compilation of answers provided by respondents concluded that some activities are performed more often than others. Of 573 respondents the majority either live (53%) and/or go to school (55%) which means that they may have more of a connection to the site as opposed to someone who comes to work (35%) from afar and leaves directly after their shift is over (chart 1). Of 543 respondents, 85% stated that they at least occasionally walk on Reseda Boulevard (chart 2). Although walking percentages were high, riding a bicycle or skateboard and taking public transit were low in percentages (charts 3 & 4). Of 563 respondents 70% stated that they never ride a bicycle or skateboard on Reseda Boulevard while of 569 respondents 64% stated that they never use public transit.
Although certain elements from the site were liked or disliked, there were certain ones that were both liked and disliked. The most frequent response for the worst characteristic was Trash/graffiti whereas cleanliness was ranked 5th among the best characteristics. The top three best characteristics were availability of shops and restaurants, safety from crime, width of sidewalks and crosswalks. However, the top worst characteristics was trash/graffiti. Safety was also a big concern. Crosswalk safety and safety from traffic were also frequently mentioned responses for worst characteristics, 9% and 8% respectively. Although safety was ranked in both characteristics, the type of safety is different. People responded to having a strong feeling of safety against crime at the site although traffic safety was of great concern.
**Observation Outcomes**

**Legend**
- Trashcan
- Poor Crosswalk Marking
- Streetlamp
- Solar Streetlamp
- Uncovered Bench
- Covered Bench

**Aesthetics**

Aesthetics being a primary factor in promoting walking and biking, certain elements dealing with aesthetics were liked and disliked.

The site analysis observations confirmed the number one response of worst characteristics which deals with trash and graffiti. Within the 1.5 mile stretch of the site, there are only a total of ten trash cans. From the site observation, many of the trash cans were overflowing with trash which resulted in trash on the sidewalk (image 1). Another issue with the types of trash cans is that the bottom of the can has an opening which allows for the trash liquids to percolate which then stains the sidewalk (image 2).

Although the amount of light is important to feeling safe at night, an abundance of sunlight during the day can make individuals feel uncomfortable. Lack of shade was a concern because 7% of respondents answered that it was one of the worst characteristics. A section of the site provided adequate shade which was between Plummer and Lassen (image 3); mostly residential (land use map). The rest of the site was extremely deficient in trees and forms of providing shade. One form of lack of shade was the absence of coverings for benches. With eight uncovered benches, individuals taking a seat are left exposed to the elements which can get extreme especially in the summertime with temperatures reaching 100+ (streetscape map).
Land Use

With one of the highest percentage in the best characteristics category, availability of shops and restaurants was highly regarded. A benefit in this stretch of Reseda Boulevard is that land usage is greatly diversified. With a combination of housing, restaurants, grocery stores, and many others, Reseda Boulevard gives easy access to individuals (land use map). The majority of homes and apartment complexes on Reseda Boulevard are located on the north of the site; a large variation of retail businesses is located directly parallel to CSUN (between Plummer and Nordhoff). In addition to a variety of businesses, a large presence of parking lots is observed throughout the site.

Safety

In promoting walking and biking, safety is of great concern. One of the biggest findings in this study was the concern people have with regards to traffic. Traffic volume, crosswalk safety, and safety from traffic were all categories in the worst characteristics with percentages of 18%, 9%, 8%, respectively. The safety map illustrates the quantity of traffic accidents which involved pedestrians and cyclists. Traffic accident information was gathered for a five year period (2006-11) from TIMS (Transportation Injury Mapping System) website. Although accidents are reported throughout the site, certain intersections have higher concentrations. The bulk of the accidents occurred on Reseda Boulevard between Plummer and Nordhoff and at the Rayen and Reseda intersection. The Dearborn and Reseda intersection witnessed the highest concentration of pedestrian accidents. This wide intersection had no stoplight until recently which made it very difficult for pedestrians to cross a total of 5 lanes. Fortunately, a streetlight crossing was added at this intersection in 2013 which will help improve the safety of pedestrians. The major concerns for this vehicular arterial road is safety from vehicles and traffic.
1. Continue existing maintenance routine for clean sidewalks

2. Improve cleanliness by removing graffiti

3. Improve cleanliness by eliminating overflowing and leaking trash cans

4. Improve comfort of sidewalks, benches and bus stops by adding shade elements

5. Maintain streetlights to enhance sense of safety from crime

6. Improve crosswalk safety for pedestrians & cyclists

7. Improve safety from traffic by implementing speed control elements
1. clean sidewalks
2. remove graffiti
3. trash can
4. shade elements
5. streetlights
6. crosswalk
7. speed control
8. Improve surface quality by repairing cracks and uneven sidewalks

9. Sustain the existing land use variety

8. Cracked sidewalks

8. Uneven sidewalks

9. Land use variety
This study was conducted in Fall 2013 by students in the Community Based Urban Design [URBS 440] course under the supervision of Professor Zeynep Toker. Cost estimates were developed by students in the Fieldwork [URBS 490 C] course in Spring 2014 under the supervision of Professor Craig Olwert.

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