

CITY OF SAN FERNANDO

Design Guidelines for a Walkable and Bikeable First Street



May 2013

Community Based Urban Design Course
Department of Urban Studies and Planning
California State University, Northridge

BACKGROUND

The city of San Fernando, also known as the Mission City for its rich history boasts a particular uniqueness. It is an incorporated city surrounded by the City of Los Angeles, with a total area of approximately 4 square miles and a population of 25,145. This collaborative effort between California State University Northridge (CSUN) students taking the Community Based Urban Design course at the Urban Studies and Planning Department and the City of San Fernando Planning Department is a product of 2012-2013 academic year. The project was intended to aid in the need of addressing the connectivity issues occurring on First Street Corridor.



San Fernando Civic Center



Sylmar/San Fernando Transit Center

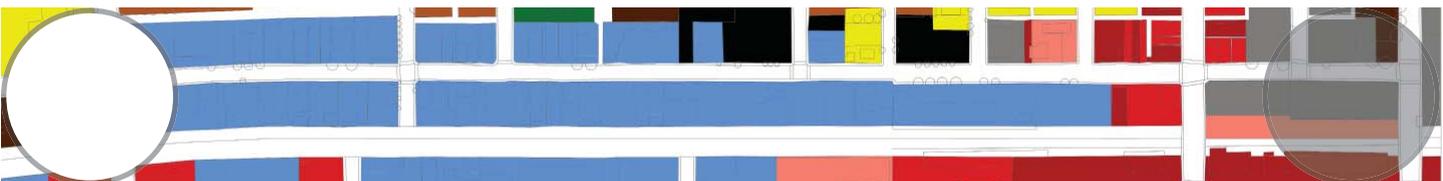
PURPOSE

The purpose of this project was to develop recommendations in order to improve the connection between the transit station, Sylmar Metrolink station and San Fernando's Civic Center by making First Street Corridor more walkable and bikeable. The land use map shows industrial and commercial uses along First Street with highlighted Transit Center at the intersection of Hubbard Boulevard and highlighted Civic Center at the intersection of Macneil Street. For this purpose, different elements that constitute walkability and bikeability were analyzed and a set of recommendations were prepared for First Street Corridor.

In order to develop recommendations to improve connectivity for different modes of transportation on First Street Corridor, a variety of observation based analysis maps were prepared by CSUN students. The project also included the users, the residents of San Fernando, in the preparation of the recommendations. The questionnaires were conducted by CSUN students in designated areas around First Street Corridor. This project establishes the need to address the factors related to connectivity on First Street Corridor.

LAND USE MAP

Single Family Housing	Yellow
Multi-Family Housing	Brown
Office	Orange
Other Commercial	Red
Food Related Commercial	Dark Red
Light Industrial	Blue
Public Entities	Grey
Parks	Green
Parking / Garage	Dark Brown
Empty Lots	Black





SAFETY

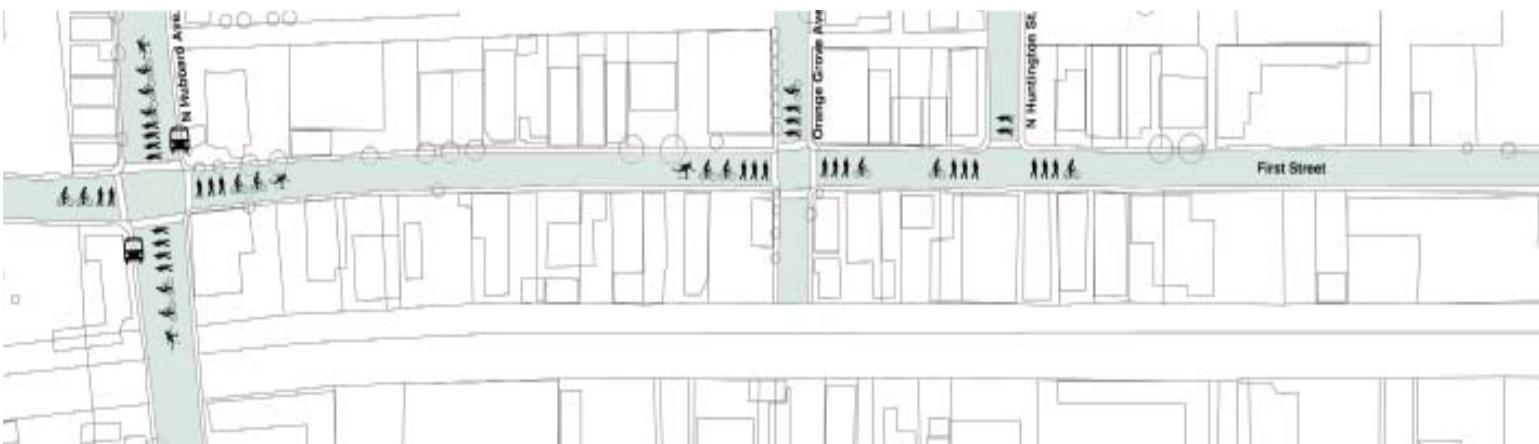
Safety is a critical component for First Street Corridor to be more walkable and bikeable. In order to assess the safety component on First Street Corridor a safety map and a circulation map were prepared in addition to conducting questionnaires about the best and worst characteristics of streets and sidewalks in the area. The safety map shows speed limits, traffic accidents, traffic volume, crosswalks, traffic lights, and street lights. The circulation map shows the volume of pedestrians, cyclists, skateboarders, and transit users.

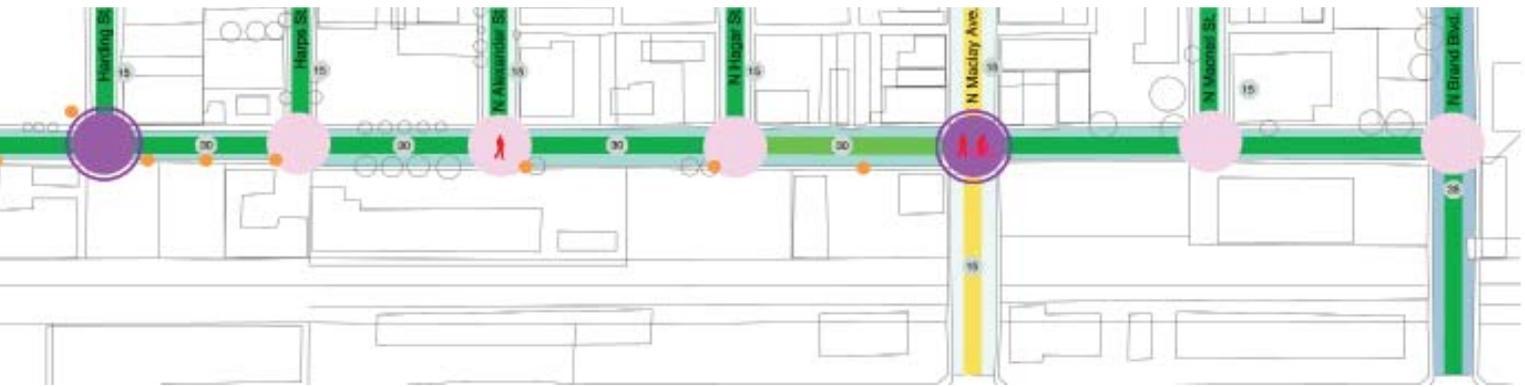
First Street Corridor has existing components that foster safety. According to the questionnaire outcomes, 10.3% of the respondents found one of the positive aspects of First Street corridor to be the people in their neighborhood, developing a sense of community. This characteristic aligns with observations of a high number of pedestrians, cyclists, skateboarders, and transit users on First Street Corridor.

Many of the respondents (15.7%) also found the sidewalks safe due to good lighting at night. In terms of traffic safety, observations showed a low volume of traffic and low speed limits on First Street Corridor.

However, there is room for improvement for safety on First Street Corridor. One area for improvement includes crosswalks. Some of the crosswalk markings are fading or non-existent. Also, all traffic accidents involving pedestrians or cyclists in the past five years happened at the intersections along First Street Corridor. Accordingly, 11.7% of the respondents found it unsafe to cross streets in the area.

Moreover, despite the positive observations of traffic volume and speed limits on First Street Corridor, 16.6% of the respondents found those to be problematic in the area. The location of the street lights only on one side of the street is also problematic as 17.7% of the respondents identified missing street lights as one of the worst characteristics of the area.

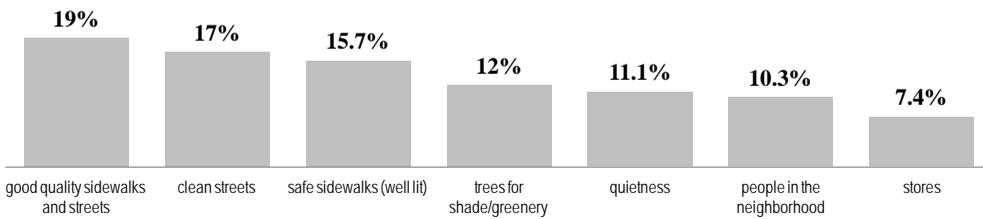




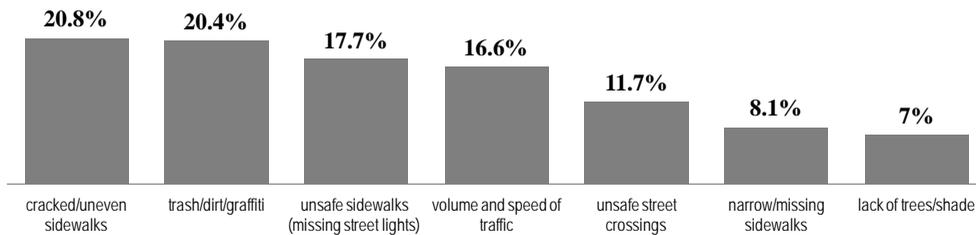
SAFETY MAP

- Speed Limit Sign in Mph 15
- Speed Limit Sign in Mph 30
- Speed Limit Sign in Mph 35
- Pedestrian Accident
- Cyclist Accident
- 0-100 Cars per 30 Minutes
- 100-150 Cars per 30 Minutes
- 850-950 Cars per 30 Minutes
- 900-1000 Cars per 30 Minutes
- Stop Signs Only
- Traffic Lights Only
- Traffic Lights and Crosswalks
- Street Lights

Best characteristics of streets and sidewalks
(Number of respondents: 563)

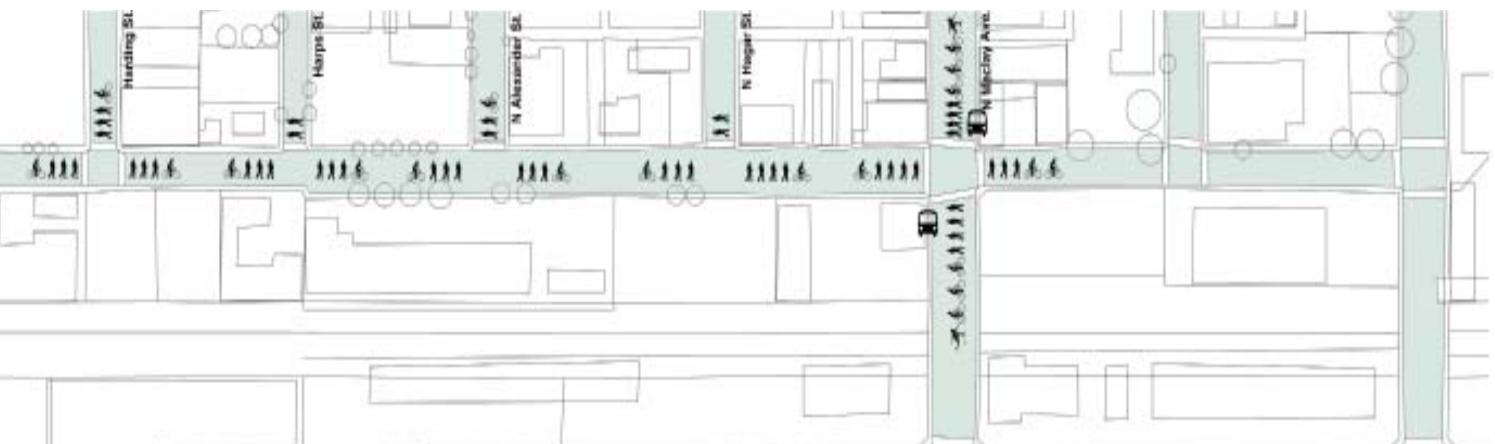


Worst characteristics of streets and sidewalks
(Number of respondents: 530)



CIRCULATION MAP

- Each = 5 pedestrians
- Each = 5 cyclists
- Each = 5 skateboarders
- Each = 5 transit riders





ACCESS

Having a high degree of pedestrian and bicycle accessibility is a pivotal aspect of connectivity on First Street Corridor. The level of accessibility was assessed through an accessibility map and questionnaires about the best and worst characteristics of streets and sidewalks in the area. The accessibility map includes information on clear width of sidewalks without obstacles, and cleanliness and surface quality of sidewalks.

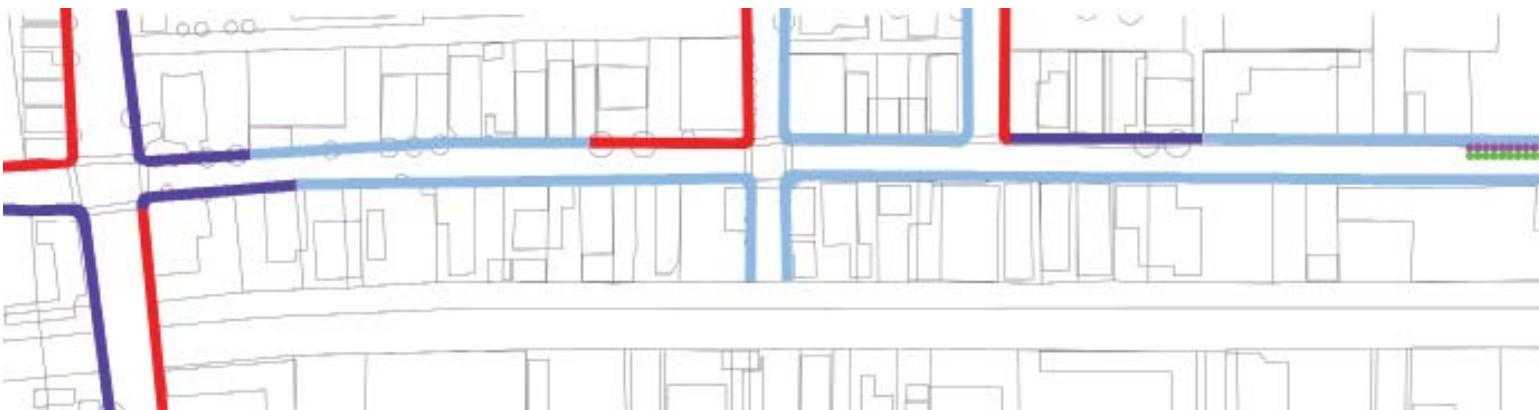


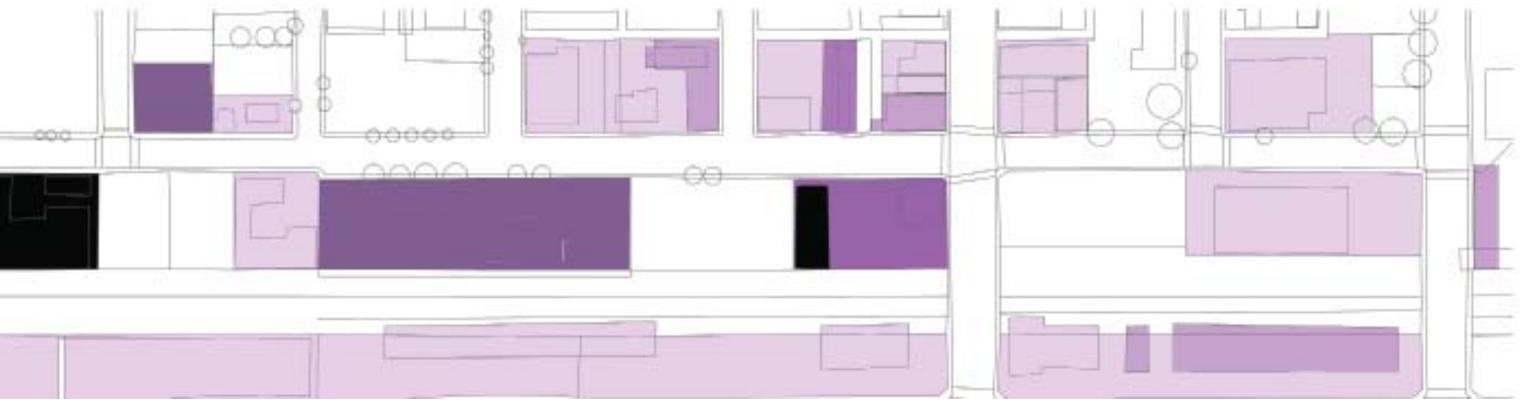
One of the most positive aspects of the streets and sidewalks in the area is also one of the worst: surface quality of sidewalks. The questionnaire outcomes show that 19% of the respondents found the maintenance of sidewalks and streets as one of the best characteristics. However, 20.8% found cracked and uneven sidewalks to be one of the worst characteristics. First Street Corridor reflects this duality with most of the sidewalks having good surface quality and some being problematic. Similarly, 17% of the questionnaire respondents found streets clean, while 20.4% complained about trash, dirt and graffiti. The accessibility map shows only a small section of First Street Corridor presenting cleanliness related problems.

According to the accessibility map the majority of sidewalks on First Street Corridor have five feet or more of paved width. Some sidewalks have obstacles (poles and trees) making the passable width on the sidewalk less than five feet. The questionnaire outcomes show that there are missing sidewalks in the area, mentioned by 8.1% of the respondents, although First Street Corridor does not have a missing sidewalk.

ACCESSIBILITY MAP

- Paved Surface 5ft or more with clear width ■
- Paved Surface 5ft or more with no clear width ■
- Paved Surface less than 5ft ■
- Sidewalk quality issue ●●●
- Cleanliness issue ●●●





STREETSCAPE MAP

- Windows, Doors & Openings
- Windows & Doors
- Doors
- Windows
- Barred Windows & Doors
- Blind Wall

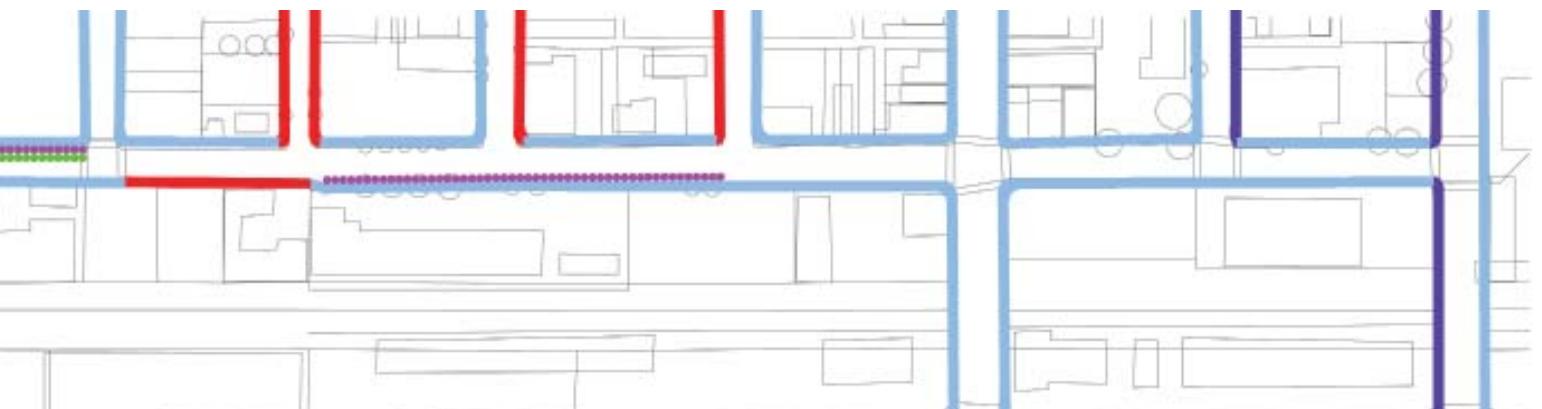
AESTHETICS

A walkable and bikeable First Street Corridor also involves aesthetically pleasing features that the pedestrians and cyclists can enjoy. To assess the aesthetics component, a streetscape map with information on the openings of the buildings onto the sidewalks was prepared and questionnaires about the best and worst characteristics of streets and sidewalks in the area were conducted.

As 12% of the respondents stated, there is a good amount of trees on First Street Corridor that provide greenery and shade. However, the questionnaire outcomes also show that there is room for improvement, since 7% of the respondents identified lack of trees and shade as a problem in the area.

The facades of locales are aesthetically unique, giving the area a sense of physical identity. However, the streetscape map shows that some properties have blind walls disconnecting them from the sidewalks. Many of the businesses have a significant amount of windows and doors, but some of those windows and doors are barred or they are painted over preventing visibility. Moreover, some businesses, in addition to having barred windows or doors, have oddly placed entrances away from the sidewalks.

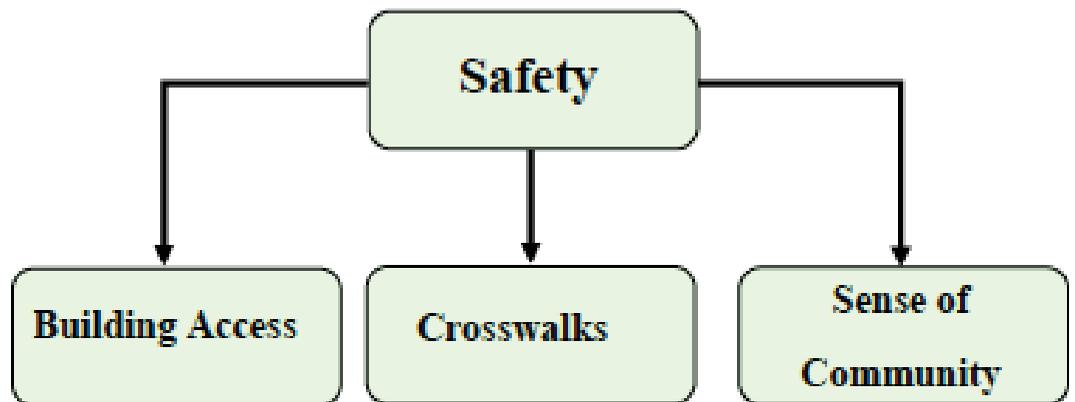
The problem of cleanliness and cracked sidewalk surfaces is related to aesthetics as much as it is to access. First Street Corridor presents some problems related to surface quality and cleanliness, which also make the Corridor less pleasing aesthetically for the pedestrians and cyclists.



DESIGN GUIDELINES

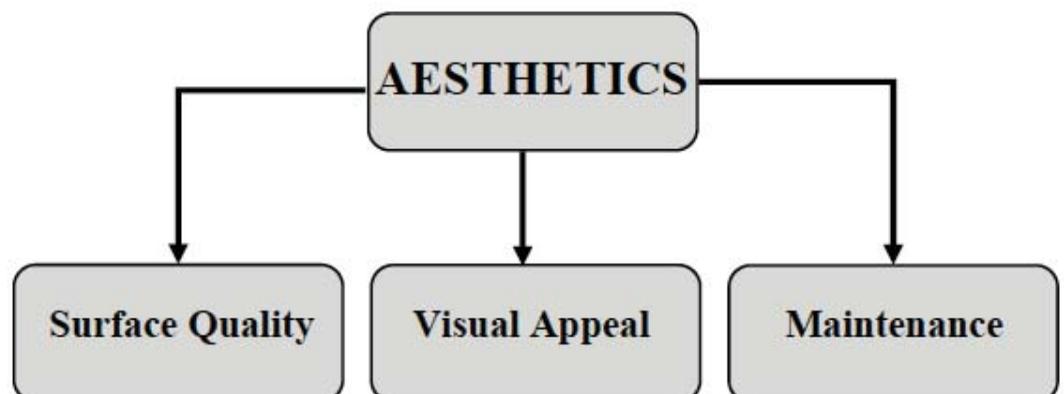
Safety

- Access to buildings from sidewalks should be improved by orienting entrances to face the street and by discouraging obscured windows and doors.
- Crosswalks should be blatantly marked for the crossing pedestrian, and for incoming traffic awareness.
- The resident's, local government, and businesses should continue to foster a sense of community within the neighborhood.



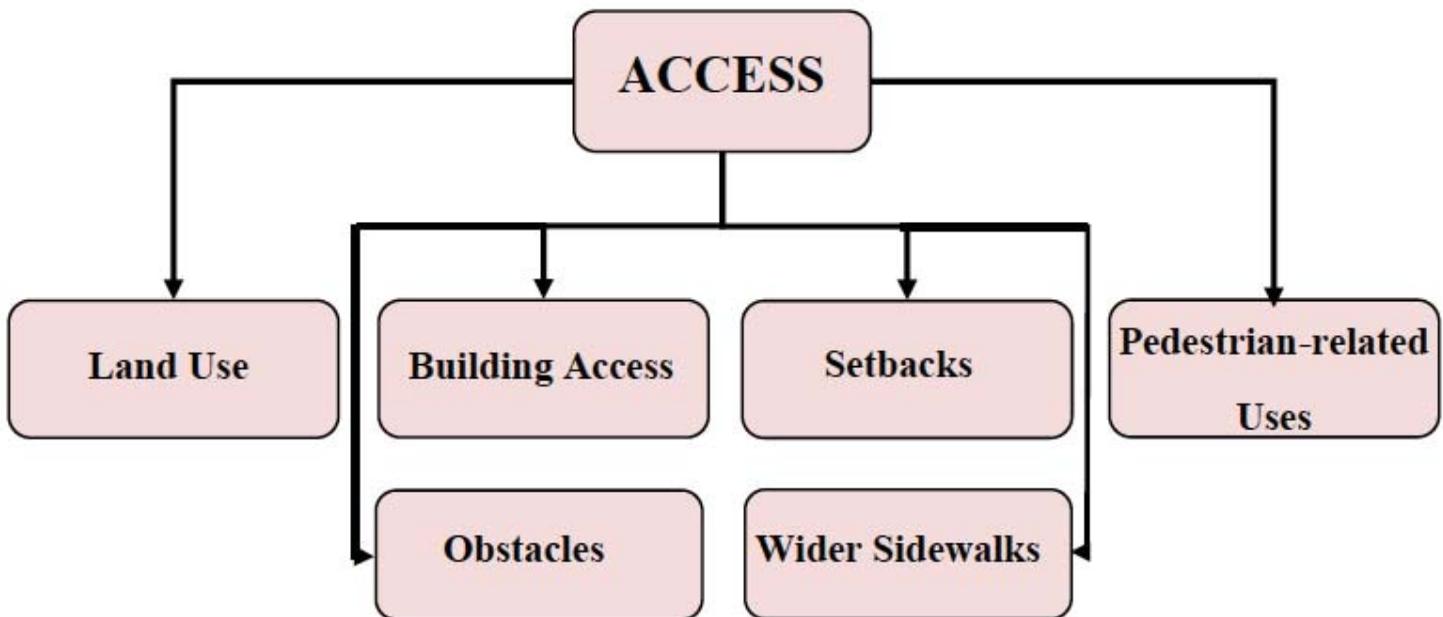
Aesthetics

- Routine maintenance of First Street Corridor should continue for surface quality and cleanliness.
- The visual appeal of First Street corridor should be improved with greenery, color and unique



Access

- Land use should encourage business variety.
- Businesses on First Street Corridor should be pedestrian-related.
- Obstacles on the sidewalks should be removed or kept at a minimum.
- Sidewalks that are less than 5 feet in width should be widened.
- Access to buildings from sidewalks should be improved by orienting entrances to face the street and by discouraging obscured windows and doors.



This study was conducted by the students in the Community Based Urban Design course (URBS 440) in the department of Urban Studies and Planning at California State University, Northridge during the Fall semester of 2012:

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