



PEDESTRIAN ORIENTED PROJECT

Re-focusing the existing urban fabric for pedestrian and commuters

ABOUT C5 ROAD

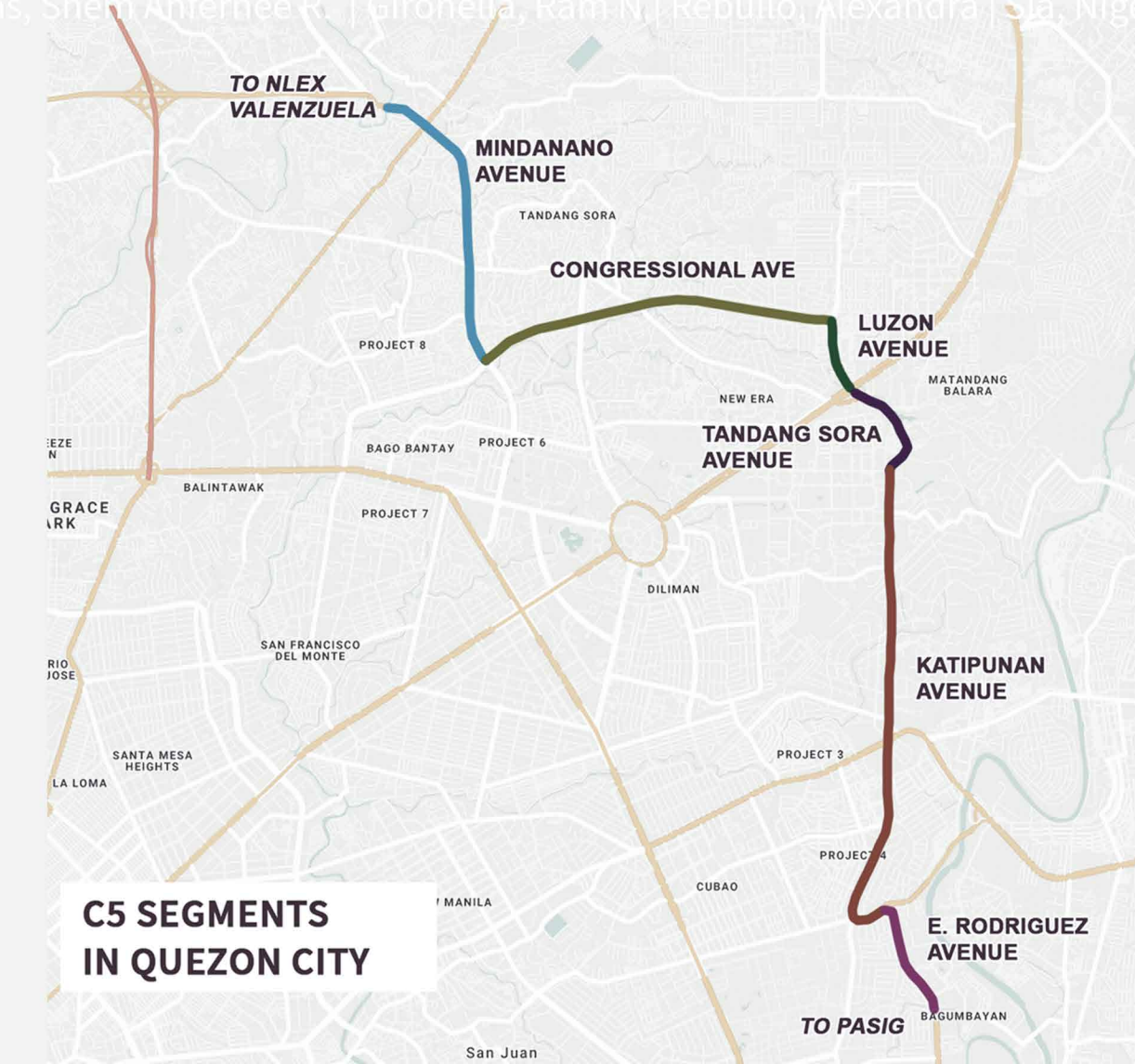
The Circumferential Road 5 or C5 is made up of bridges and roads that pass through Quezon City, Makati, Paranaque, Taguig, Pasig, Marikina, Valenzuela, & Pasig. For this proposal, the locality is focused on Quezon City, as it is the largest city. Unfortunately, C5 is seen as one of the heaviest roads in Metro Manila, and it compromises the safety of pedestrians. Although infrastructures such as crossroads, footbridges, and waiting sheds are still provided, traffic is still present as the current experience situation do not encourage people to walk in public.

FUTURE OF C5

Under a government infrastructure project, C5 segments in Quezon City will be supplemented with a flyover, 1km east of the C5. It is expected that traffic may change after its completion allowing redevelopment for the existing road. The flyover aims to connect the two national expressways and to have junctions with Marcos Highway for Marikina City and Ortigas Ave in for Pasig City.

KEY CONSIDERATIONS

- > Physical distancing brought on by the COVID-19 pandemic
- > Individuals' safety and security
- > Comfortability and convenience when commuting
- > "Sense of place"



ON WALKABILITY AND THE NEED FOR SUCH PROPOSAL...

The Philippines is currently in a state where traveling with vehicles has become a primary need due to how car-oriented the cities are built. Commuting and walking is more of a hassle due to numerous factors concerning the safety and conditions of sidewalks and pedestrian facilities in general. People are discouraged to use these and nor are they easily accessible for everyone.

In C5, most sidewalks are inadequate, narrow, unusable by persons with disability, often occupied by vendors, as well as retail spaces extending their reach to pedestrian areas. These current problems lead to pedestrians being forced to traverse on the road itself which increases risk of danger and causes more congestion in the area.

There is also a problem when it comes to crossings. Although some accidents are partly related to pedestrians' arrogance, like jaywalking, there is also a fault on the infrastructures being inadequate. It should be re-examined to why people don't use these elevated crossings. One of the reasons observed is that motorists are not giving way on crossings and that some elevated crossings are challenging for PWDs and the elderly. There is also the issue of safety as people would rather jaywalk than to risk getting mugged on the overpass.

APPROACH & CONTEXT

Guidelines should be revisited when it comes to designing sidewalks in Metro Manila due to the pedestrian behavior. Solutions for walkability should lessen obstacles and ensure pedestrian facilities are placed in optimal areas that won't hinder the traffic flow. The levels of service (LOS) criteria must be verified in these designs. There is a need for incorporating a safe, accessible, & inclusive design, in the proposed solution. In order to prevent people from walking on the road, there needs to be a clear incentive for the user in using the sidewalk.

The proposed solutions should be able to address these issues which improves user experience. Another threat is security especially in the experience of elderly and late night users on their way home. The proposal is needed to make accessibility a better experience for the pedestrians.

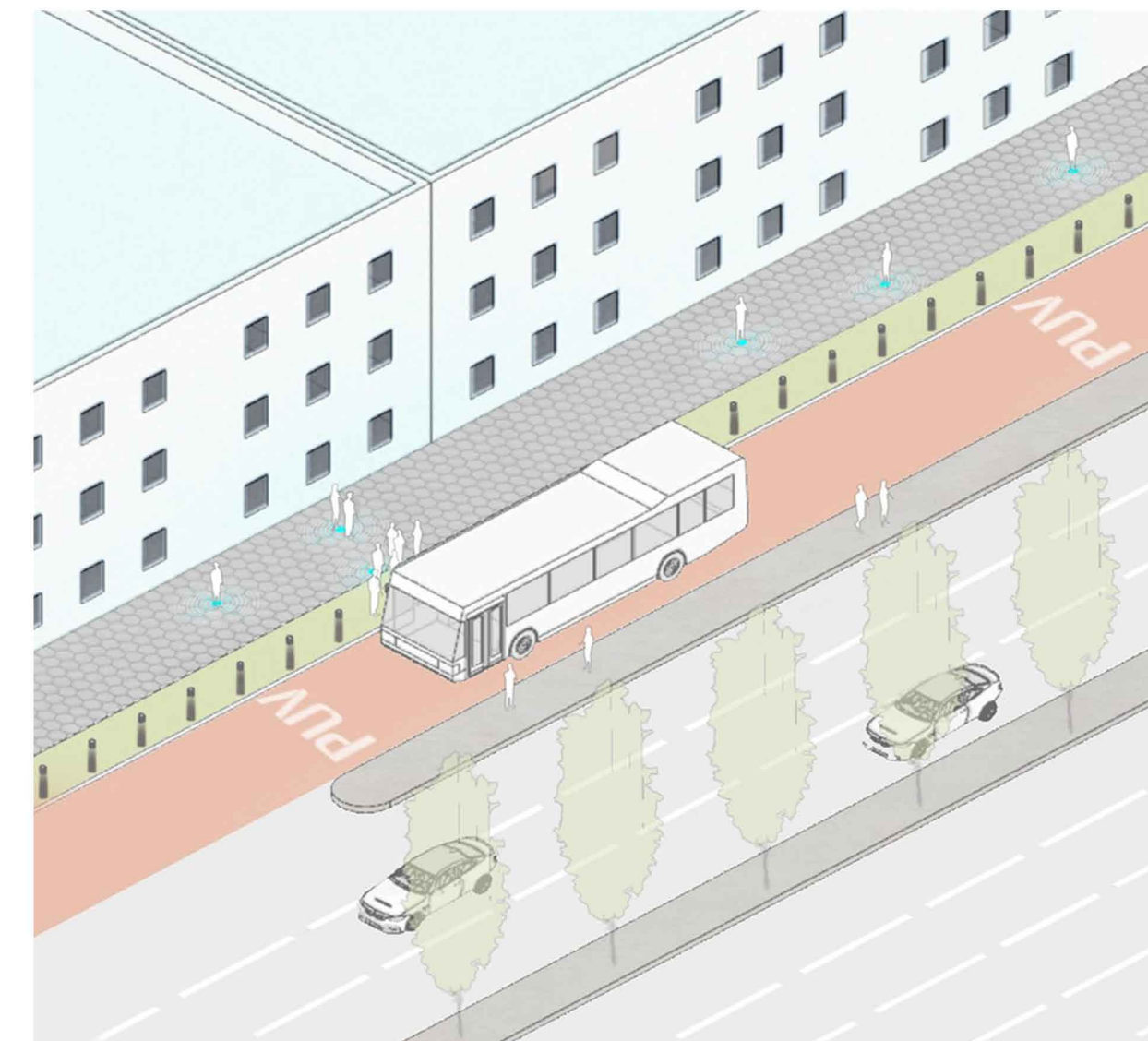
While walking as means of transportation can be viewed as more affordable for many pedestrians in the Philippines, it has become undervalued and prioritized less. Since most people choose to use vehicles, priority has been shifted to accommodate vehicle users, wherein roads widen which compromises pedestrian infrastructures. When this happens, this encourages users to consider buying a car to avoid walking, adding up to the traffic and simultaneously further degrade the quality of walkability in Metro Manila. While solving for traffic is still important, it will only be worsened if its surrounding problems are not considered as well.

The method to go about this is to increase one's understanding of the pedestrian decision process within Metro Manila. By pointing out and figure the surrounding attributes that will be depended on by pedestrians, to see what factors they consider would encourage or discourage them from walking can aid to improve the walkability within the city.

PROBLEM STATEMENT

Pedestrian footbridges exist just for the sake of its purpose: to allow people to cross over the street safely. However, considerations for the experience of using them per say are overlooked, as the problems with these footbridges include no roofing to protect users from the rain and sun, steep steps, slippery surface when rained upon due to the material it is made of, and occurrence of informal settlers.

Crossroads are provided but jaywalking still happens. Waiting sheds invite informal settlers as well. By improving the pedestrian infrastructures in C5 and make it into a more walkable path, it is believed that this can aid in improving the state of C5 and lessen traffic as well in Metro Manila.



PLACEMENT STRATEGY

- Place/Fix an overpass
- Place a waiting shed
- Place both overpass & waiting shed
- C5 Road

STRATEGY: STREETS FOR PEDESTRIANS

A multi-modal street proposal for a 7 lane road. Originally having 7 lanes, the street gives more space to pedestrians and commuters alike by widening sidewalks and allocating bike lanes and dedicated drop off points for alighting passengers.



ISSUE: TANDANG SORA AVENUE

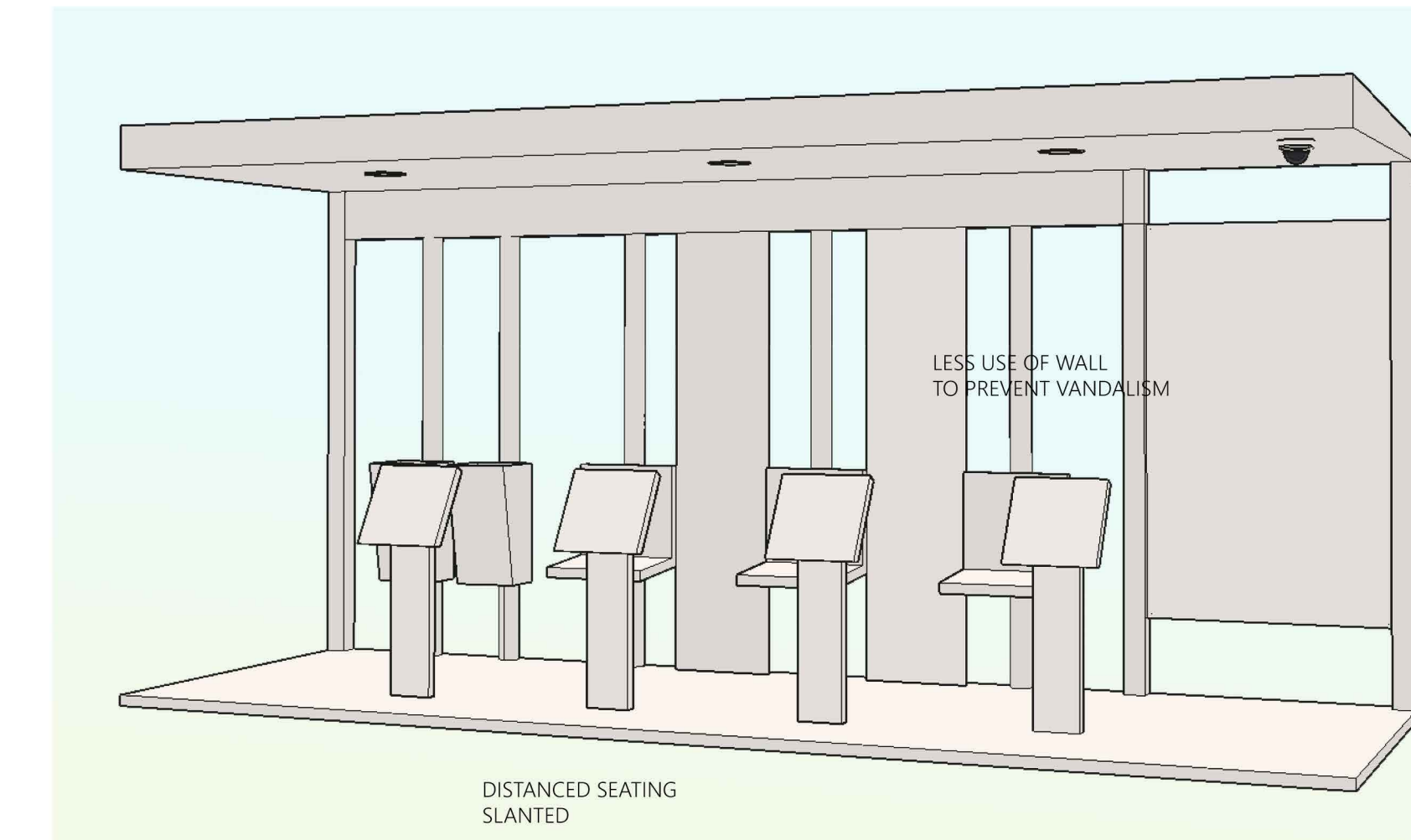
- > Pedestrian crossways as the common infrastructure
- > There are a total of 2 pedestrian overpass & 1 pedestrian lane
- > Pedestrian overpass is located on one side only

ON THE IDEA OF "SENSE OF PLACE".... A sense of place is when people feel a longing of belonging towards a place or a city they are familiar with. When people visit a place for the first time, there is a feeling of anxiety and excitement where they tend to explore their surroundings for the first time.



ISSUE: KATIPUNAN AVENUE

- > Insufficient waiting sheds
- > Insufficient pedestrian overpass
- > Existing Overpass have steep steps, often vandalized, no shade/roofin, and made of slippery metal finish
- > Lack of pedestrian infrastructures



STRATEGY: WAITING SHED

The solution for the proposed waiting sheds is similar to the overpass but there is more emphasis on preventing vandalism due to a great amount of loiterers on waiting sheds along C5 especially overnight. Thus, the design must have been pleasurable yet has less elements that could be easily destroyed.

The proposal is a design without benches and with less walls to give less chances to sleep on and for example, the walls as a medium for spray paint and other sorts of vandalism. The shed instead makes use of leaning stands, a place good enough to stay while waiting for the commute. The waiting shed also includes a map and solar powered lights which store in the morning to be used at night for late night commuters.

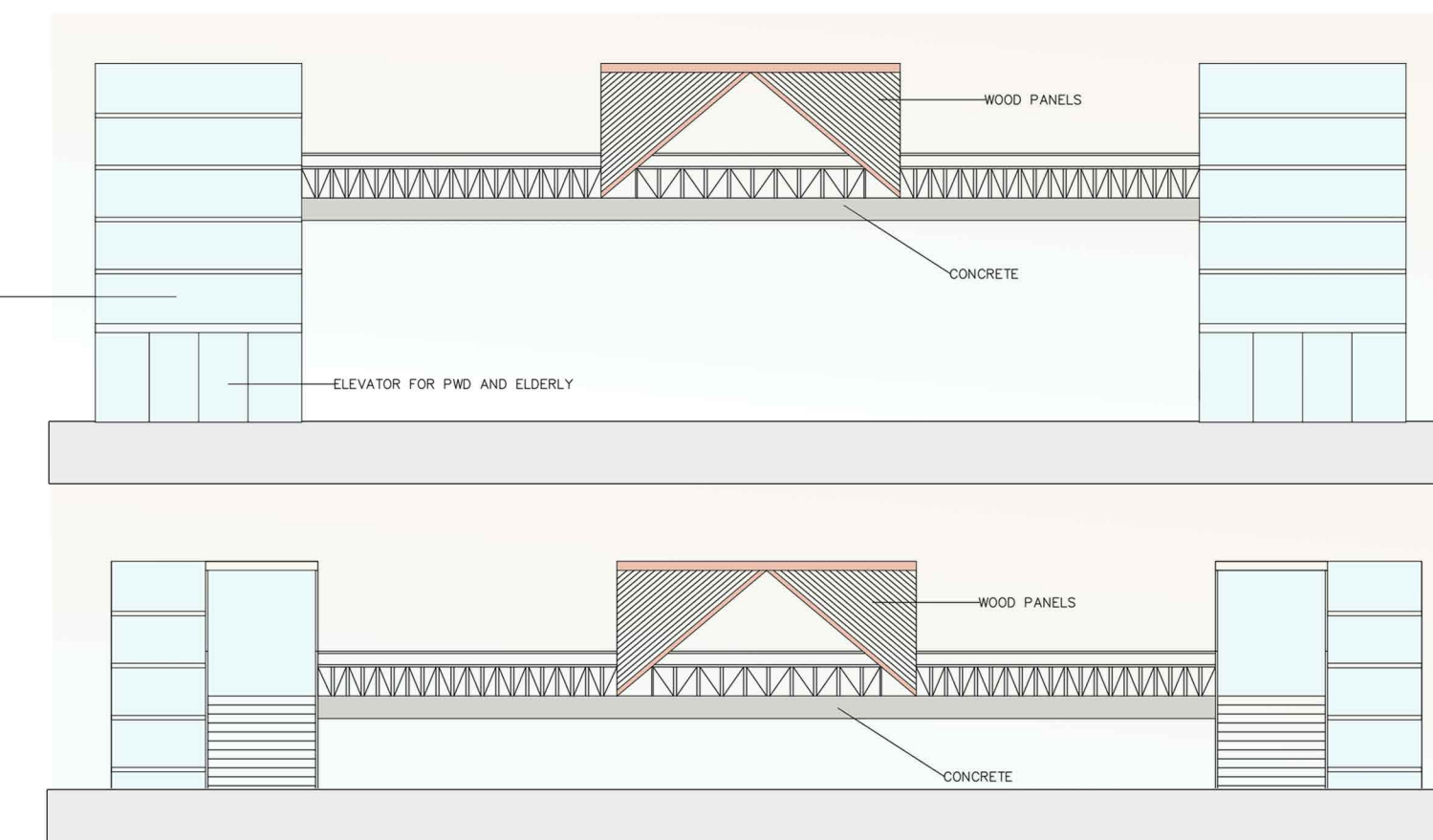


ISSUE: SANTOLAN ROAD

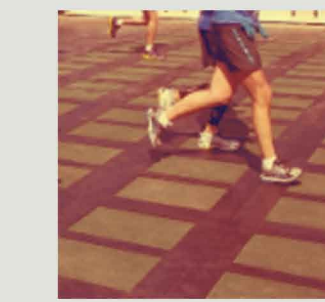
- (Colonel Bonny Serrano Avenue)
- > Insufficient pedestrian bridges
- > At-grade crossways as the common infrastructure
- > No markings & Narrow Sidewalk

STRATEGY: OVERPASS

The figured solutions are to add bike lanes, create an interactive experience by use of kinetic tiles, the widening of up to 3-4 meters due to pandemic reasons, and to place segmented roofs instead of a full one to minimize vandalism whilst maintaining cover. The focus of the solution on the overpass design was to create a better experience for the users while maintaining safety.

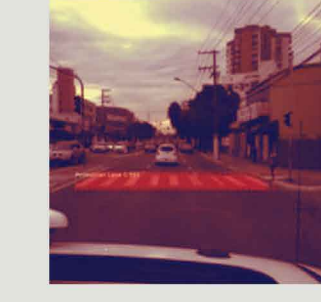


OTHER STRATEGIES



Kinetic Tiles

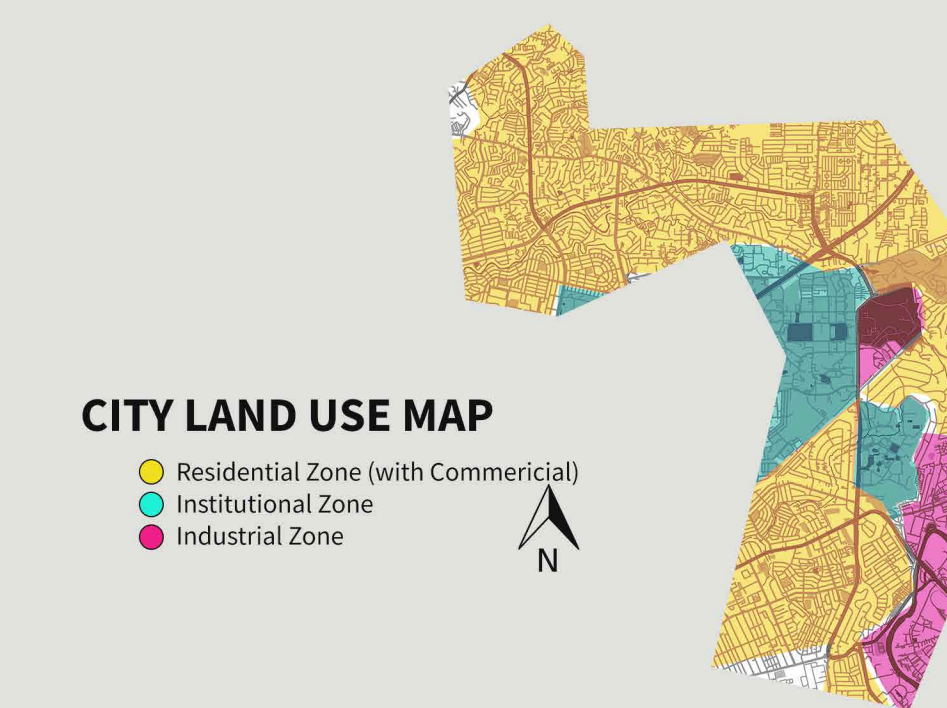
The installation of kinetic tiles along sidewalks and surfaces where people walk onto will allow C5 to be more sustainable, as deriving energy from the constant movement of people will help in powering up the structures and street furniture along C5, leaving less impact on the environment.



Laser Aided crosswalks

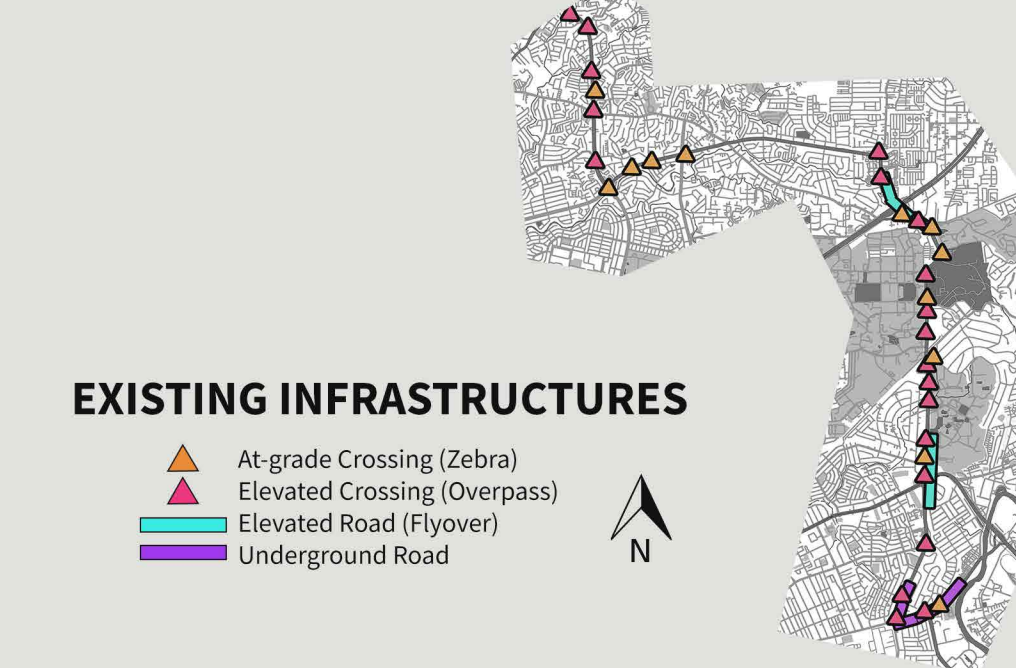
Laser Aid crosswalks will make crossing the streets safer with the use of laser system, as projections on the ground will assist people especially drivers with poorer eye visibility, and give more visible and prominent signals on when stop or cross.

ANALYSIS OF THE LOCALITY



CITY LAND USE MAP

- Residential Zone (with Commercial)
- Institutional Zone
- Industrial Zone



EXISTING INFRASTRUCTURES

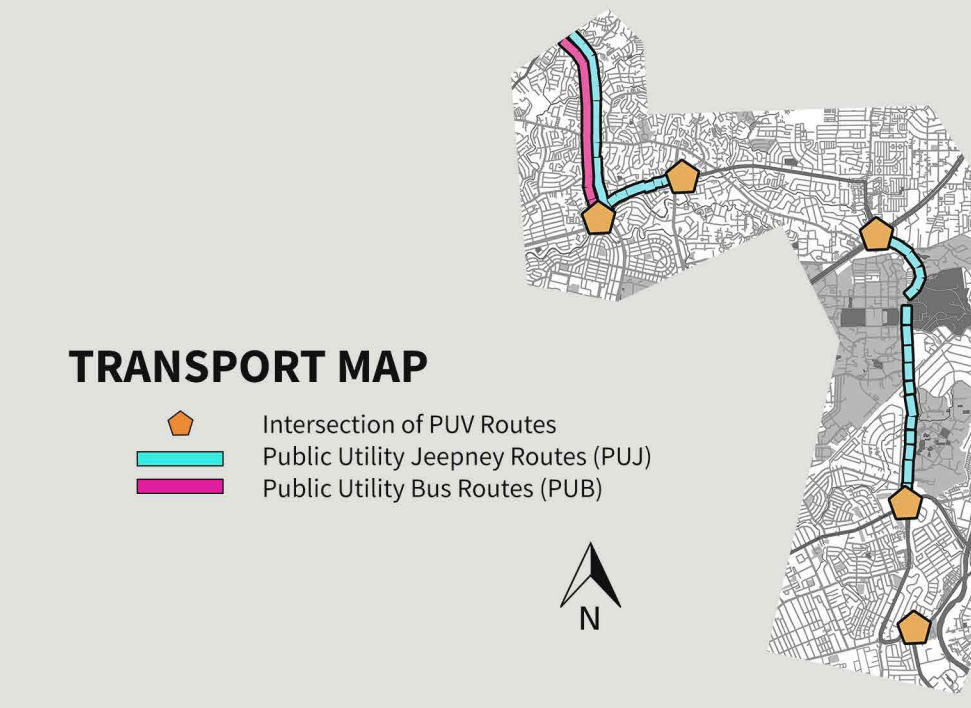
- At-grade Crossing (Zebra)
- Elevated Crossing (Overpass)
- Elevated Road (Flyover)
- Underground Road

The areas C-5 traverses are mostly occupied by residential zones, low to medium density, with patches of low to medium rise commercial establishments. This includes the area of Tandang Sora (C5 - Congressional Extension).

Heading south will be traversing through university campuses primarily near University of the Philippines, Ateneo de Manila University and Miriam College. Along Katipunan Ave also shares commercial establishments like a shopping and business hub as well as small stores and eateries. Near Libis is a mixed of commercial and industrial zones adjacent to Pasig City.

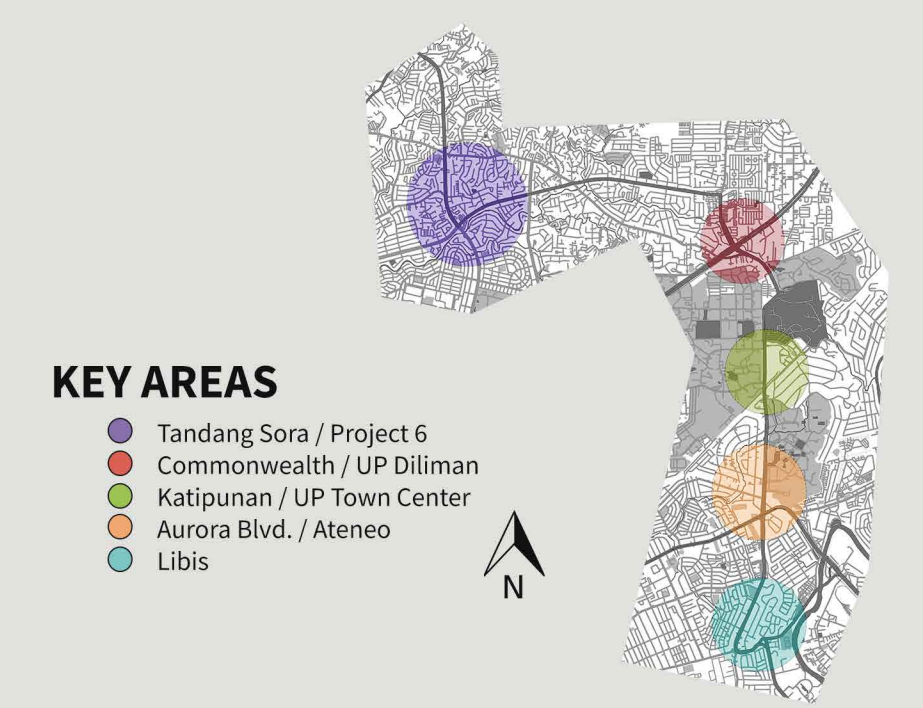
C5 segments in Quezon City occupies a range of 4 lanes to 7 maximum, separately each for the northbound and southbound traffic. The existing number of overpass in these areas are limited and there is a higher occurrence when its near centers of activities (market, school, church).

An overpass crossing is common in this area with only a number of at-grade (Zebra) crossing present. Areas with the at-grade crossing are near low-rise residential areas and/or commercial zones. C5 also have flyovers one crossing Commonwealth Ave. and Aurora Blvd. An underground route is present at the end of Katipunan segment nearing the Libis area.



TRANSPORT MAP

- Intersection of PUV Routes
- Public Utility Jeepney Routes (PUJ)
- Public Utility Bus Routes (PUB)



KEY AREAS

- Tandang Sora / Project 6
- Commonwealth / UP Diliman
- Katipunan / UP Town Center
- Aurora Blvd. / Ateneo
- Libis

Only 2 portion of the C5 in Quezon City are used by Public Utility Vehicles (PUVs). Public Utility Jeepneys (PUJs) and Buses (PUBs) run through the Mindanao Avenue Segment until a portion of the Congressional Ext. segment. Another route is used in Katipunan and this mostly caters those in the end of UP campus to and from Aurora Blvd.

Five intersections of other PUV routes are also indicated as the act as terminal points of a commuter passing through C5. These transport intersections are in Tandang Sora, Project 6, Diliman, Katipunan and Libis. These usually caters students, workers and regular commuters.

Key areas of C5 in Quezon City start at the Mindanao Ave. and Congressional Ext. as it has commercial establishments and a hospital, close to Project 6. Next area is at the corner of UP Diliman alongside Tandang Sora as these intersects with Commonwealth Ave, a major busy road connecting the northern and southern parts of Quezon City. Next is in the UP Town Center area, where students and other people go to for shopping and dining. The intersection at Aurora Blvd is also of importance as this connection point to people coming from Marikina City. Lastly, the area in Libis also has commercial buildings and a church.