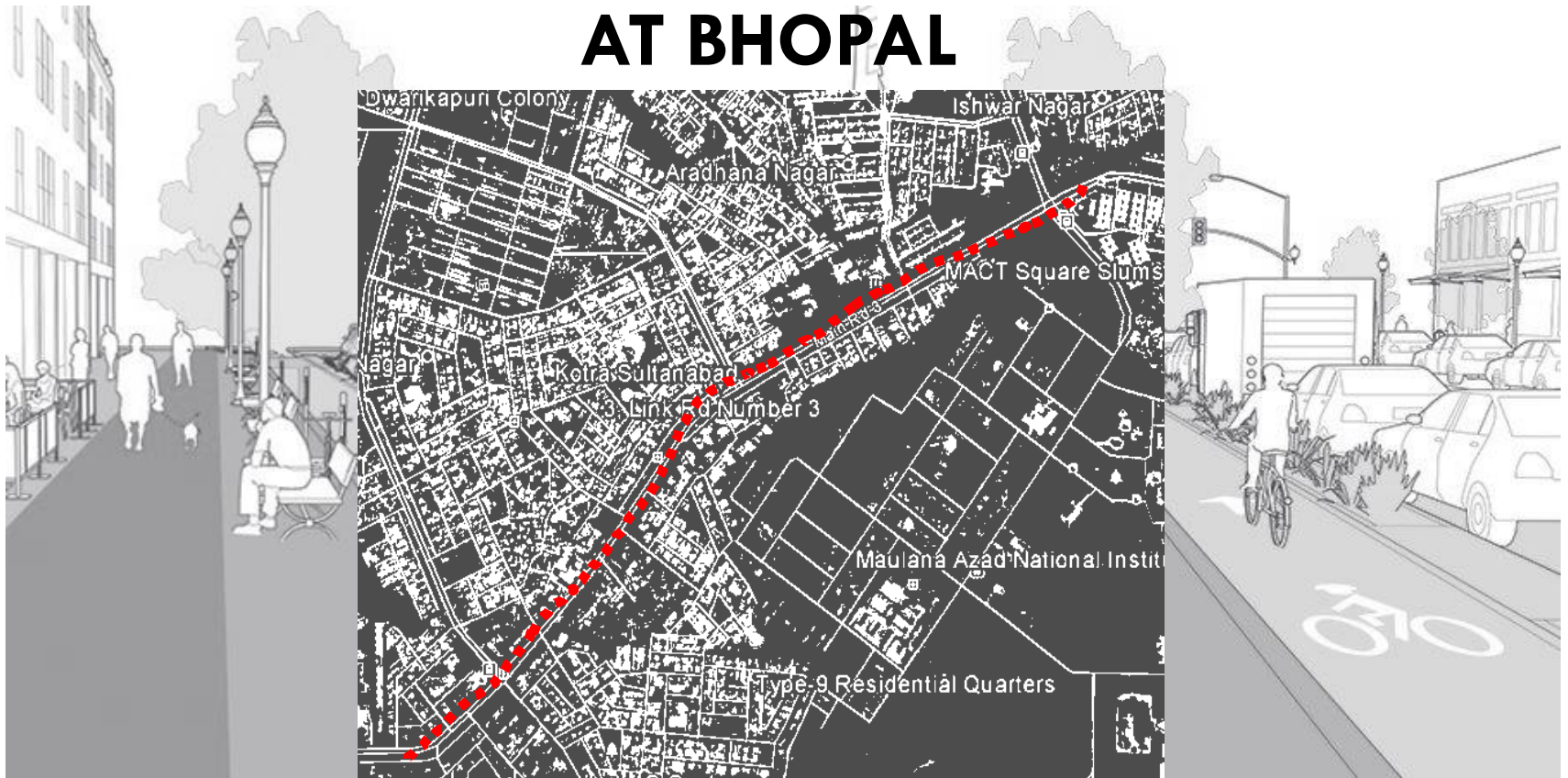


LINK ROAD-3

BEAUTIFICATION PROJECT AT BHOPAL



January 12, 2017

COMPLETE STREET

1. A street is a public thoroughfare in a built environment. It is a public parcel of land adjoining buildings in an urban context, on which people may freely assemble, interact, and move about. A street can be as simple as a level patch of dirt, but is more often paved with a hard, durable surface such as concrete, cobblestone or brick. Portions may also be smoothed with asphalt, embedded with rails, or otherwise prepared to accommodate non-pedestrian traffic.
2. This is just the definition of street but since we have to create, and beautify the existing street, lets see what all we need to make it a **complete street**

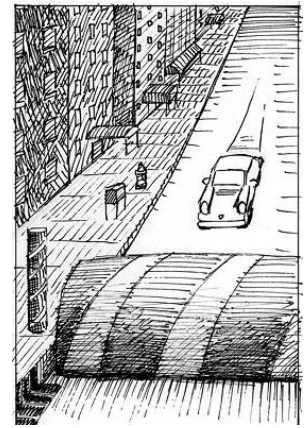
IMPORTANCE OF STREET

1. **SAFETY**
2. **ECONOMIC GROWTH**
3. **PROVIDING CHOICES AND REDUCING CONGESTION**
4. **CONVENIENCE AND HEALTH BENEFITS**
5. **HELPING CHILDREN, ELDERLY AND THE DISABLED**
6. **ENVIRONMENTAL IMPACT**

IMPORTANCE OF STREET

1. SAFETY

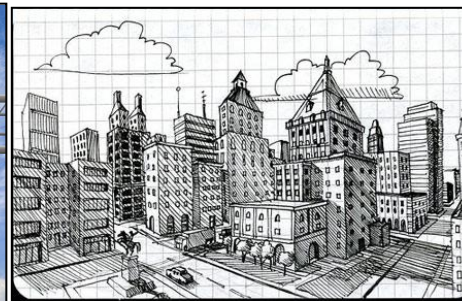
- Providing safe and convenient bicycle and pedestrian networks decreases the likelihood of accidents between automobiles, bicyclists and pedestrians.
- Simply painting crosswalks on wide high-speed roads does not reduce pedestrian crashes, but measures that design the street with pedestrians in mind, including sidewalks, raised medians, improved bus stop placement, traffic-calming measures, etc. all significantly reduce accidents and improve overall safety



IMPORTANCE OF STREET

2. ECONOMIC GROWTH

- A balanced transportation system that includes **Complete Streets** can facilitate economic growth by providing accessible and efficient connections between residences, schools, parks, public transportation, offices, and retail destinations.
- It would attract businesses to consider relocating to link road region by knowing their workforce will have mobility options and not be destined to sit in traffic.



IMPORTANCE OF STREET

3. PROVIDING CHOICES AND REDUCING CONGESTION

- Investing in only automobile travel lanes discourages transportation choices and dictates travel behavior.
- Streets that provide travel choices can give people the option to avoid traffic jams, and increase the overall capacity of the transportation network

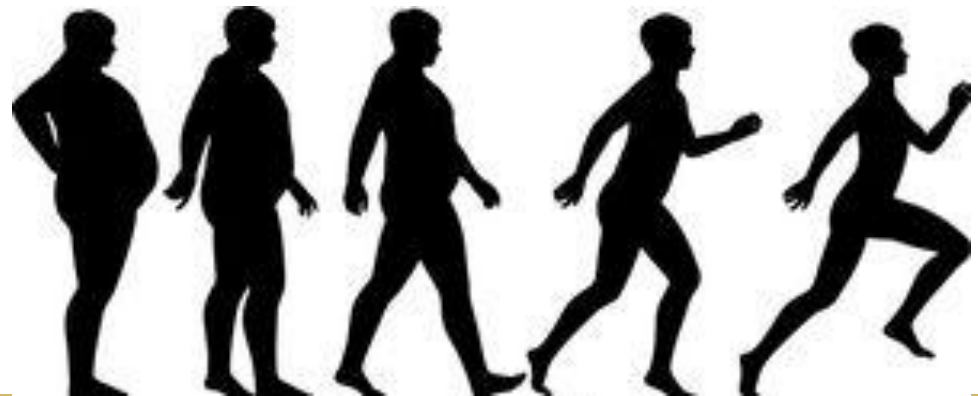


IMPORTANCE OF STREET

4. CONVENIENCE AND HEALTH BENEFITS

- Streets that provide facilities for bicycling and walking help people get physically active and gain independence.
- Walking and bicycling is a solution to the increasing problem of obesity and other related issues, and complete street can help with this
- With these system people can conveniently walk and ride to their destinations and maintain the activity level throughout

F A T T O F I T



IMPORTANCE OF STREET

5. HELPING CHILDREN, ELDERLY AND THE DISABLED

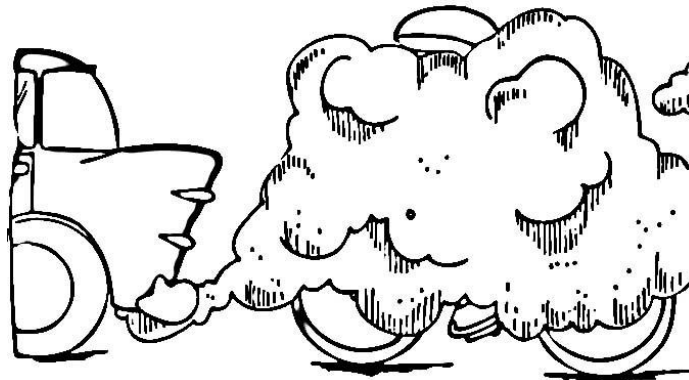
- More children walk to school when sidewalks are in place, and children who have access to safe pedestrian and bicycling routes have a more positive view of their neighborhood.
- Providing safe pedestrian and bicycling networks also increase mobility options for the elderly and disabled who may not be able to operate a motor vehicle but do have the ability to get around on foot or by bicycle.



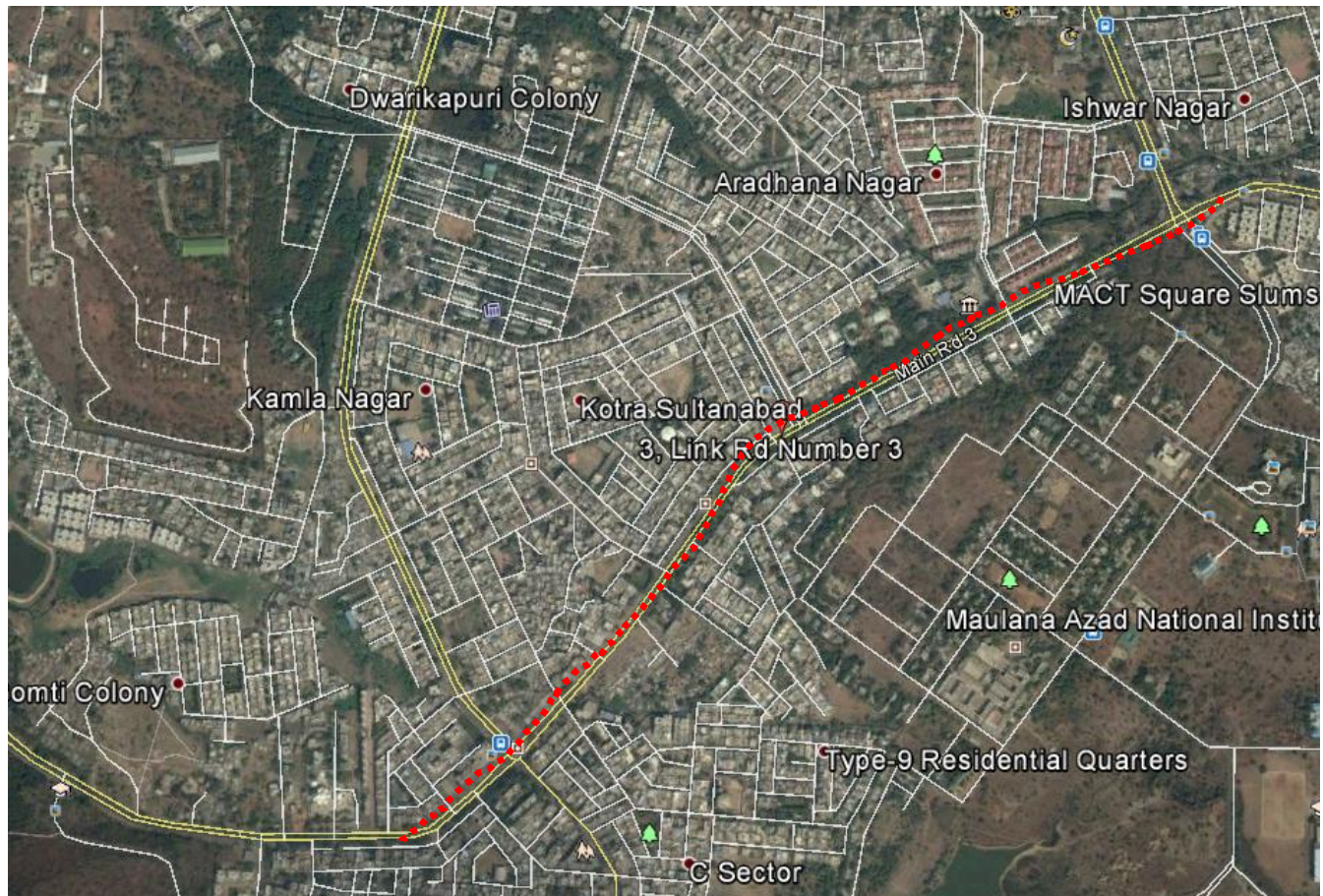
IMPORTANCE OF STREET

6. ENVIRONMENTAL IMPACT

- Poor air quality in urban areas is linked to increase in asthma and other illnesses.
- In country like India people most prefer to drive either by motor bike or car, but if the streets are well planned and if each resident of community replaces one car trip with one bike trip just once a month, it would cut carbon dioxide (CO₂) emissions in the community.
- However, Complete Streets allow this to happen more easily.



EXISTING SITE



January 12, 2017

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

THE MEDIAN

1. THE ROAD SIGNS NEED TO BE DEMARCATED/REPAINTED AS PER THE STANDARDS
2. PLANTING AT THE MEDIAN, TO ADD MORE FOLIAGE TO THE CITY
3. WIRE MESH PROTECTION FOR THE PLANTS

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

THE SIDEWALKS

1. PAVED SIDEWALKS TO BE ADDED ON BOTH THE SIDES OF THE ROAD WITH SITTING AT CERTAIN INTERVAL
2. SEPERATE BICYCLE TRACK , WITH EARTH BLOCK PAVING TO RETAIN SURFACE WATER
3. FOLIAGE AT THE SIDEWALKS

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

THE ZONING-FOR HAWKERS

1. PEOPLE IN INDIA LIKE THE STREET FOOD, SO AT CERTAIN AREAS THIS CAN BE ZONED IN PROPER WAY, IN ORDER TO AVOID DISRUPTION TO THE TRAFFIC
2. ELSE, WHERE NOT REQUIRED CAN BE COMPLETELY REMOVED

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

THE DRAINAGE

1. THESE DRAINS CAN HAVE RAILING OR FENCING TO SAFEGUARD THE PEOPLE
2. CULVERT CAN BE MADE WHERE REQUIRED

January 12, 2017

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

PRESERVE THE BEAUTY OF THE CITY

1. WRITEUPS/STICKERS ON WALL SHOULD BE PROHIBITED
2. SPECIAL PROVISION CAN BE MADE TO SHOWCASE OR ADVERTISING THE SAME MATTER

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

PRESERVE THE BEAUTY OF THE CITY

1. PLACEMENT OF HOARDINGS/BOARDS SHOULD BE ARRANGED IN PROPER MANNER
2. SPECIFIC SPOTS CAN BE ALOTTED FOR THE SAME

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

THE BOUNDARY WALL

1. TO BEAUTIFY THE STREET THE MOST IMPORTANT THING IS TO KEEP IT WELL ARRANGED AND THE ELEMENT SHOULD BE IN SYNC WITH ENTIRE SCHEME
2. WHERE POSSIBLE THE BOUNDARY WALL CAN BE REVAMPED AND MAINTAINED, WHICH CAN ADD CHARACTER TO THE STREET

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

SAFETY OF CHILDREN AND ELDERLY

1. PEDESTRIAN PATHWAYS AND SEPARATE BICYCLE TRACK CAN BE SAFE FOR THE CHILDREN AND ELDERLY
2. THEY CAN STROLL SAFELY AND WITHOUT WORRYING ABOUT THE MOVING TRAFFIC

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

INSTALLATION OF TRAFFIC SIGNALS

1. PEOPLE IF FOLLOW THE TRAFFIC RULES MAY AVOID THE CHAOS, SO HERE THE LAW AND ORDER MAY WORK THAT IN PLACE

January 12, 2017

EXISTING SITE PHOTOGRAPHS



IMPLICATION: PARKING

1. SEPARATE PARKING ZONES TO BE ALOTTED WHERE REQUIRED ALONG THE ROAD,
2. PEOPLE SHOULD BE MADE TO PARK THEIR VEHICLES IN ALOTTED AREAS, IF NOT FOLLOWED CAN BE PENALIZED

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

REMOVAL OF ENCROACHMENT

1. ENCROACHMENT DISTRACTS THE TRAFFIC FLOW AND TAKES AWAY THE PERMISSIBLE ROAD WIDTH ILLEGALLY
2. THIS CAN BE REMOVED TO ACCOMMODATE WELL-PLANNED STREETS

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

RETAIN THE LOCAL ARTISANS

1. SINCE THERE IS NO PROPER PLACE FOR THEM TO EARN OR DISPLAY THEIR ART, THESE PEOPLE ENCROACHES THE ROADSIDES AND IT IN TURN DISRUPTS THE TRAFFIC AND ROAD WIDTH
2. HENCE PROPER PLACE CAN BE ALOTTED TO THEM,
3. THE STREET FOOD HAWKERS/ LOCAL ARTISANS CAN HAVE 'HAAT' LIKE PLACE WHERE THEY CAN DO BUSINESS AND AT THE SAME TIME PEOPLE GET TO ENJOY THIS AT ONE PLACE AND OUR CULTURE IS ALSO PRESERVED IN SUITABLE WAY

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

ENCOURAGE GREEN CITY

1. THE CITY HAS MANY PARKS THEY NEED TO BE RETAINED AND MAINTAINED
2. THE ENTRANCE OF THE PARKS TO BE ENHANCED
3. SEPARATE VEHICLE PARKING FOR THE VISITORS NEAR THE PARKS
4. GREEN PLANET –BICYCLE RIDER ORGANISATION ENCOURAGES BICYCLE RIDING PROGRAMS, SO IF THE CITY HAS SEPARATE BICYCLE TRACKS, IT CAN BENEFIT THE RIDERS

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

BUS STOPS AND SIGNAGES

1. BUS STOPS AND SIGNAGE BOARDS NEARBY FOR THE BETTER UNDERSTANDING AND CONVENIENCE

EXISTING SITE PHOTOGRAPHS



IMPLICATION:

RESTORATION OF OLD STRUCTURES

1. NEED TO BE REPAINTED AND MAINTAINED

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EXISTING SITE PHOTOGRAPHS



IMPLICATION: THE CROSSING

1. ZEBRA CROSSING TO BE REPAINTED
2. PEDESTRIAN CROSSING TO BE LOOKED UPON

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EXISTING SITE PHOTOGRAPHS



IMPLICATION: THE ROADS

1. TAMPERED ROADS TO BE FIXED AT CERTAIN LOCATIONS

EXISTING SITE PHOTOGRAPHS

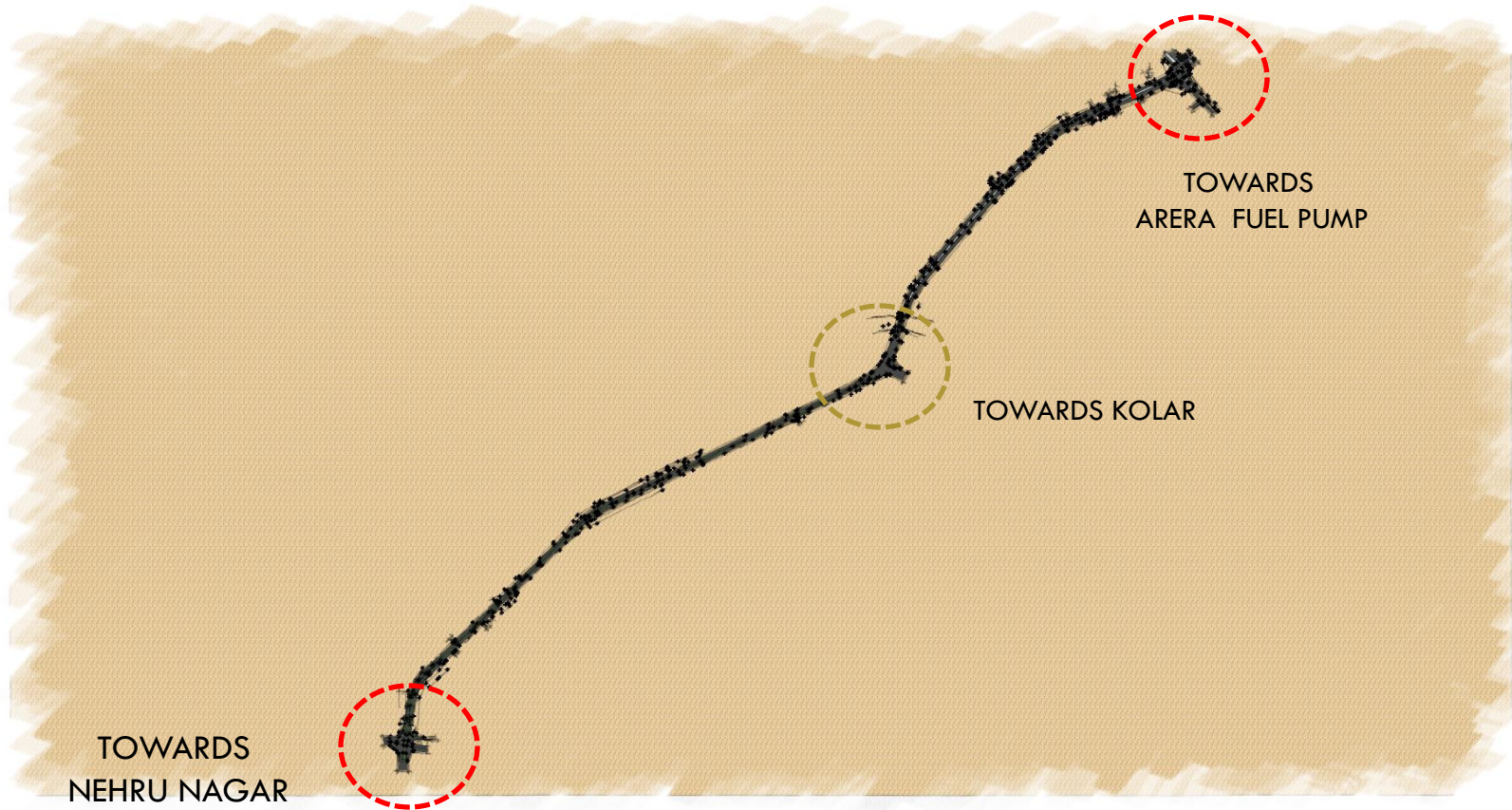


IMPLICATION:

PUBLIC TOILETS –RENOVATION (IF REQUIRED)

1. IT CAN BE REDESIGNED KEEPING IN MIND, SAFETY, SECURITY, BETTER SERVICE ACCESS, LIGHTING, LANDSCAPE ETC.

DESIGN PROPOSAL



January 12, 2017

DESIGN ANALYSIS

SIDEWALKS ZONE



1. FRONTAGE ZONE

The frontage zone describes the section of the sidewalk that functions as an extension of the building. The frontage zone consists of both the structure and the facade of the building fronting the street, as well as the space immediately adjacent to the building

2. PEDESTRIAN THROUGH ZONE

The pedestrian through zone is the primary, accessible pathway that runs parallel to the street. The through zone ensures that pedestrians have a safe and adequate place to walk and should be 5–7 feet wide in residential settings and 8–12 feet wide in downtown or commercial areas.

3. STREET FURNITURE/CURB ZONE

The street furniture zone is defined as the section of the sidewalk between the curb and the through zone in which street furniture and amenities, such as lighting, benches, newspaper kiosks, utility poles, tree pits, and bicycle parking are provided. The street furniture zone may also consist of green infrastructure elements, such as rain gardens or flow through planters

4. ENHANCEMENT/BUFFER ZONE

The enhancement/buffer zone is the space immediately next to the sidewalk that may consist of a variety of different elements.

These include curb extensions, parklets, stormwater management features, parking, bike racks, bike share stations, and curbside bike lanes or cycle tracks.

DESIGN ANALYSIS

SIDEWALKS ZONE

VIEW SHOWING SEPARATE
PEDESTRIAN WALKWAY, BIKE LANES
AND CAR PARKING



1 Bicycle Crossing

2 Yield Markings

3 Bicycle Stop Line

4 5 ft. Curb Radius

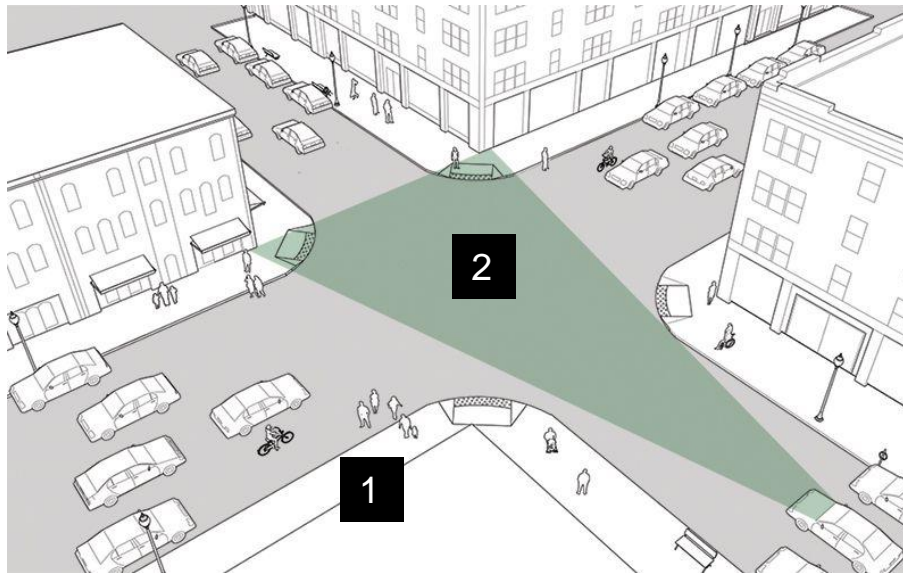
5 Channelizing Island

DESIGN ANALYSIS

VISIBILITY AND SIGHT DISTANCE

Visibility and sight distance are parameters central to the inherent safety of intersections, driveways, and other potential conflict points.

TOWARDS
ARERA FUEL PUMP



TOWARDS
NEHRU NAGAR

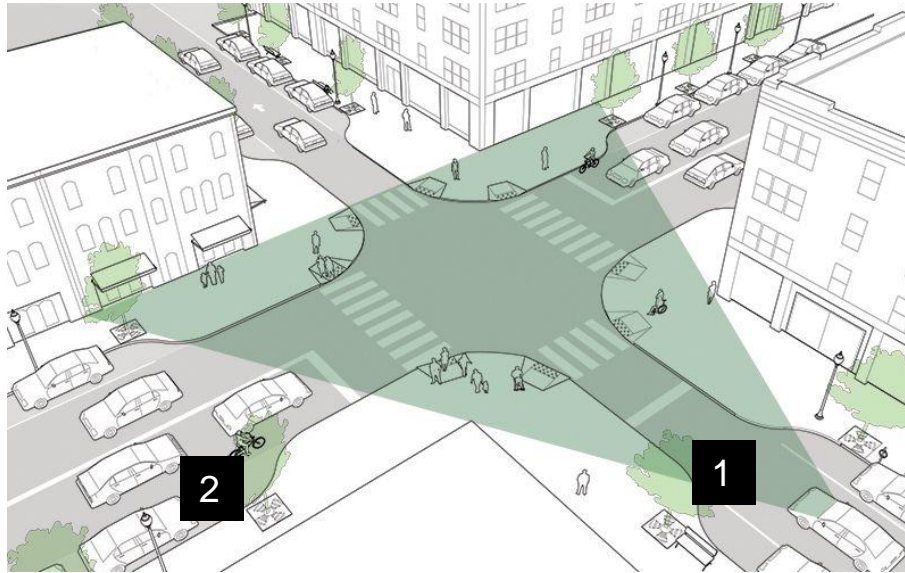


1. In urban areas, corners frequently act as a gathering place for people and businesses, as well as the locations of bus stops, bicycle parking, and other elements. Design should facilitate eye contact between these users, rather than focus on the creation of clear sightlines for moving traffic only.
2. Wide corners with large sight triangles may create visibility, but in turn may cause cars to speed through the intersection, losing the peripheral vision they might have retained at a slower and more cautious speed.

DESIGN ANALYSIS

VISIBILITY AND SIGHT DISTANCE

TOWARDS
ARERA FUEL PUMP



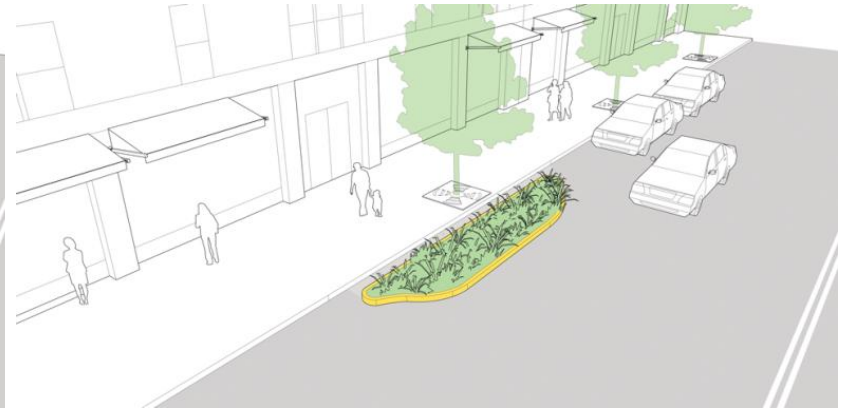
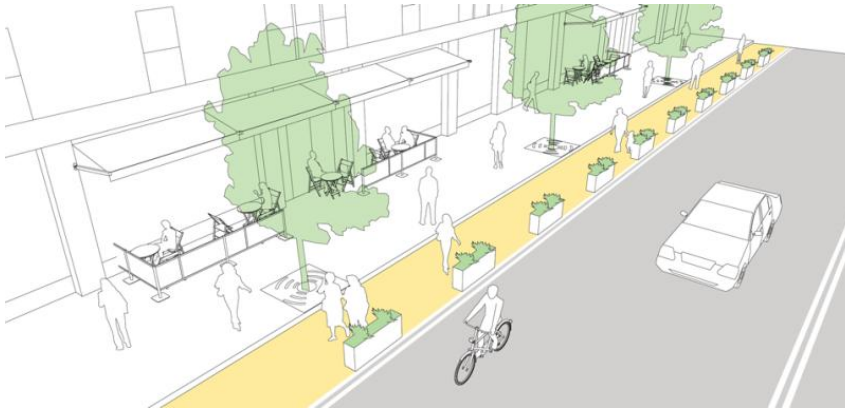
TOWARDS
NEHRU NAGAR



1. Fixed objects, such as trees, buildings, signs, and street furniture, considered to hamper the visibility of a given intersection and create safety concerns, should not be removed without the prior consideration of alternative safety- improvement measures, including an increase in visibility through curb extensions or, the addition of supplementary warning signs.
2. Removing parking within 20–25 feet of the intersection.

DESIGN ANALYSIS

MOVING THE CURB Curbsides has the potential to host a wide variety of uses beyond parking.



As neighborhoods change and develop, the intensity of a street's uses may also change. Sidewalks can be expanded using interim materials, such as gravel, planter beds, and bollards, easing pedestrian congestion in advance of a full reconstruction.

INTERIM SIDEWALK WIDENING



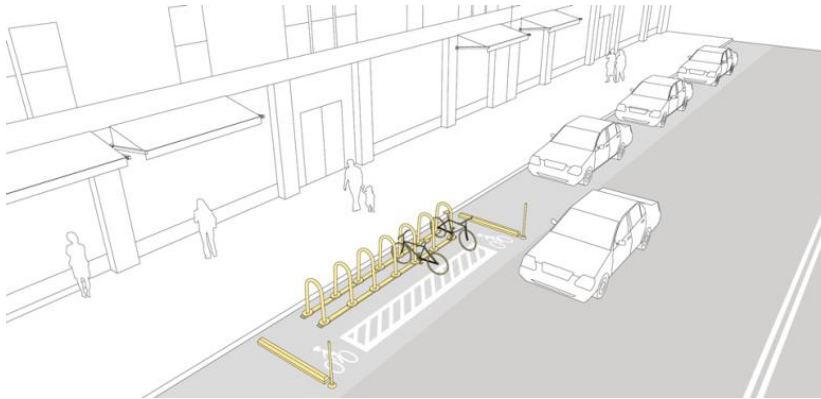
Temporary traffic calming can be installed using a narrow channel. These offset islands help slow speeds in advance of a full reconstruction.

TRAFFIC CALMING



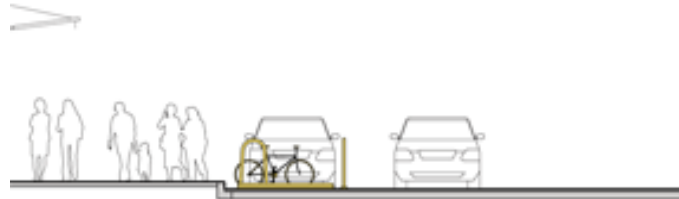
DESIGN ANALYSIS

MOVING THE CURB- BICYCLE CORRALS/SHARING STATION

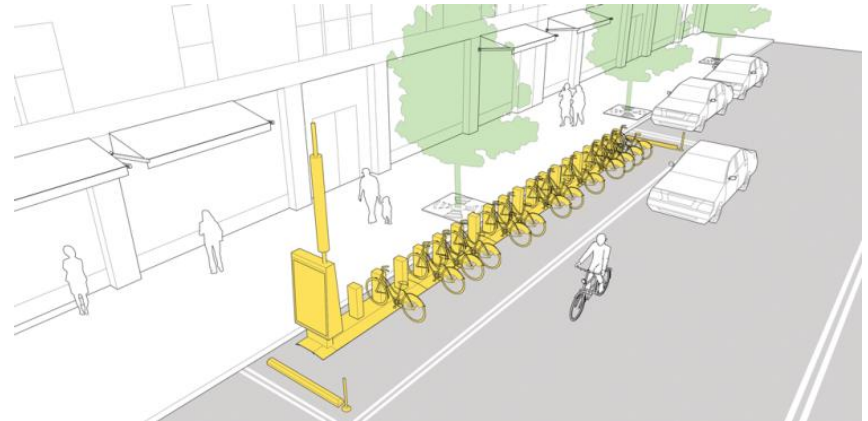


Bicycle corrals typically replace one parking space at the request of a local business or property owner and accommodate 12–24 bikes. Corrals can be installed at corners to daylight an intersection since bicycle parking has no effect on the visibility of pedestrians to moving vehicle traffic.

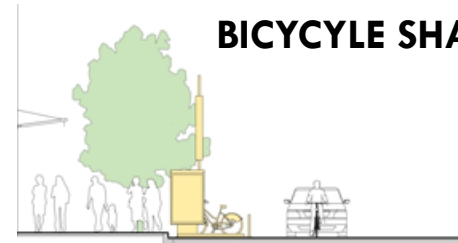
BICYCLE CORRALS



Bicycle share stations can serve as an integral part of the public transit system. Station maps and kiosks can serve as a focal point that orients tourists and visitors while drawing people to key destinations.



BICYCLE SHARING STATION

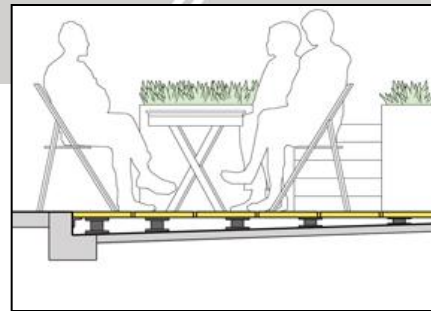


DESIGN ANALYSIS

MOVING THE CURB- PARKLETS



Park lets are open/semi covered public seating platforms that replace several parking spaces. They serve as a gathering place for the community and can energize local stores and shops. Also, these areas can be replaced by hawkers at certain places in an organized way.



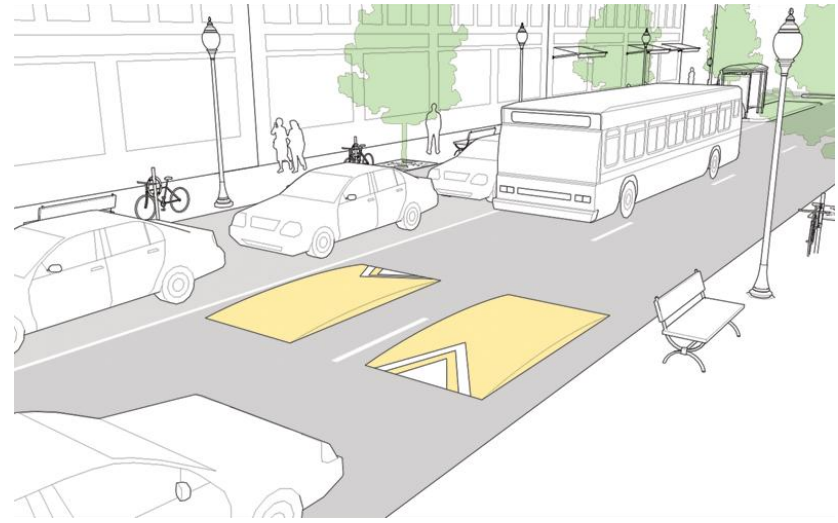
DESIGN ANALYSIS

VERTICAL SPEED CONTROL ELEMENTS

THESE ARE TRAFFIC CALMING DEVICES INTENDED TO SLOW TRAFFIC SPEEDS ON LOW VOLUME, LOW SPEED ROADS.



Speed breakers reduce speeds to 15–20 mph, these can be installed where required throughout the street



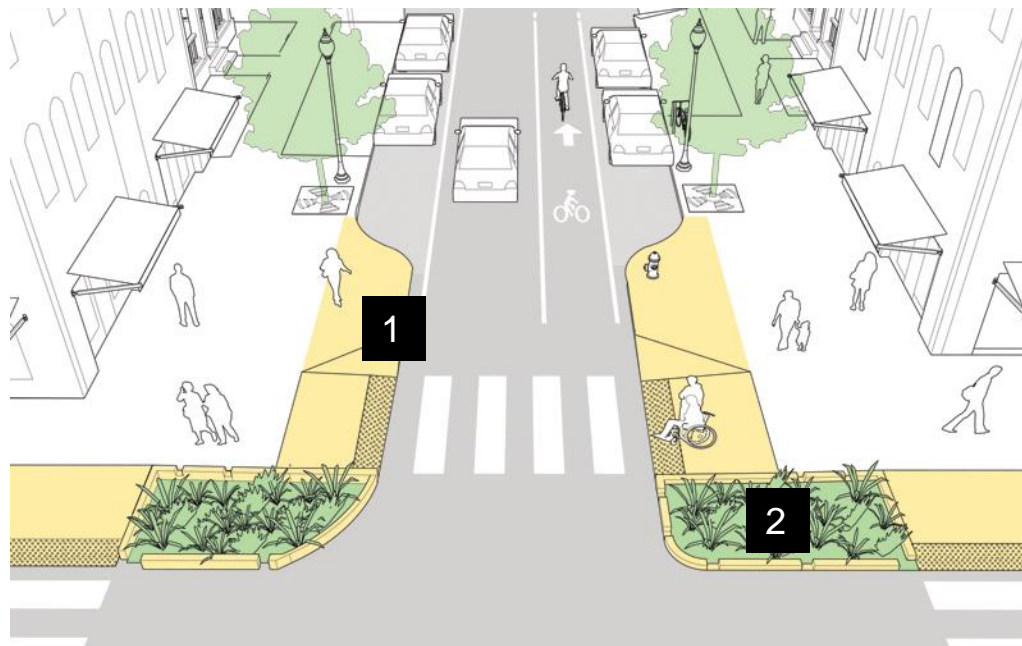
Speed cushions allow emergency vehicles to pass their wheels on either side of the raised area.

Speed cushions extend across one direction of travel from the centerline, with longitudinal gap provided to allow wide wheel base vehicles to avoid going over the hump.

DESIGN ANALYSIS

CURB EXTENSIONS- GATEWAY

CURB EXTENSIONS INCREASE THE OVERALL VISIBILITY OF PEDESTRIANS BY ALIGNING THEM WITH THE PARKING LANE AND REDUCING THE CROSSING DISTANCE FOR PEDESTRIANS.



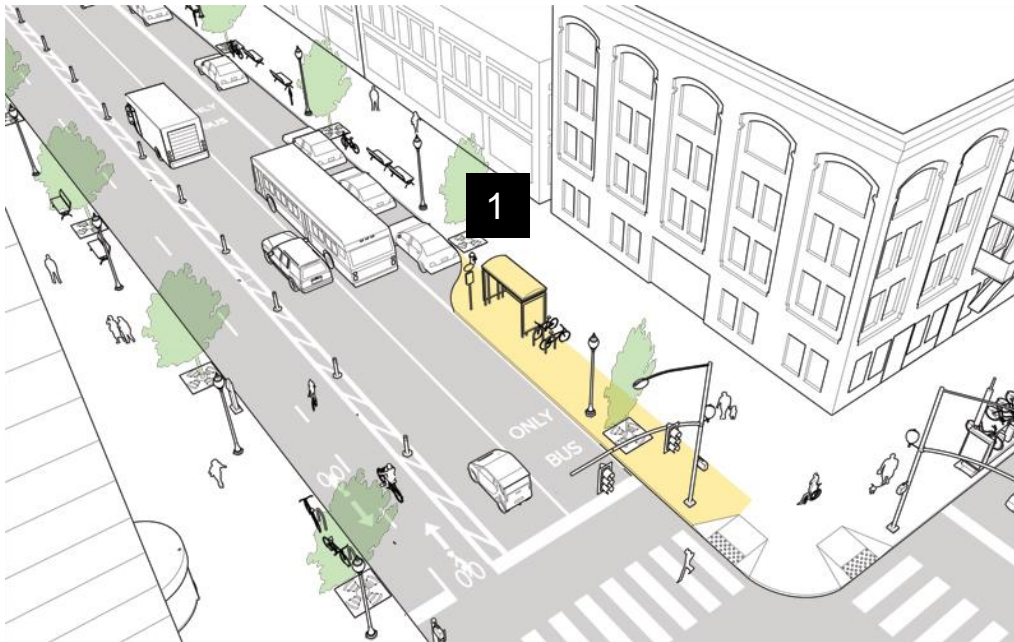
1. Curb extensions are often applied at the mouth of an intersection. When installed at the entrance to a residential or low speed street, a curb extension is referred to as a “gateway” treatment and is intended to mark the transition to a slower speed street.
2. Combine storm water management features, such as bioswales or rain gardens, with curb extensions to absorb rainwater and reduce the impervious surface area of a street.

DESIGN ANALYSIS

CURB EXTENSIONS- BUS BULBS

BUS BULBS ARE CURB EXTENSIONS **THAT ALIGN THE BUS STOP** WITH THE PARKING LANE, ALLOWING BUSES TO STOP AND BOARD PASSENGERS WITHOUT EVER LEAVING THE TRAVEL LANE.

BUS BULBS MAY BE COMBINED WITH AMENITIES SUCH AS WAY FINDING MAPS, PLANTINGS, AND TREES TO ENHANCE THE OVERALL TRANSIT USER EXPERIENCE.



1. Bus stops should be equipped with transit shelters whenever possible. Shelters make transit more attractive and may be combined with off-board fare collection for faster payment options
2. Bus stops help buses move faster and more reliably by decreasing the amount of time lost when merging in and out of traffic.

DESIGN ANALYSIS

MIDBLOCK CROSSWALKS

MIDBLOCK CROSSWALKS FACILITATE CROSSINGS TO PLACES THAT PEOPLE WANT TO GO BUT THAT ARE NOT WELL SERVED BY THE EXISTING TRAFFIC NETWORK.



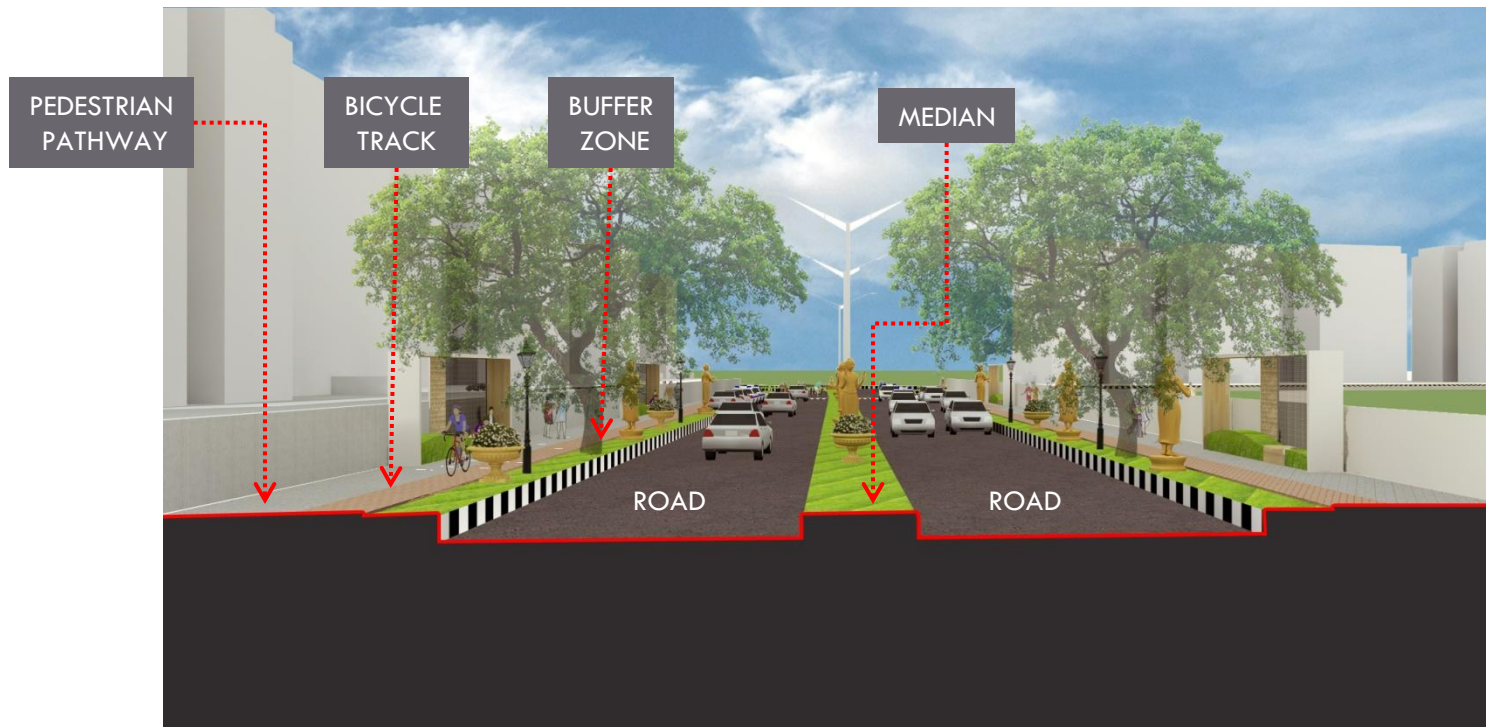
Difficulty in pedestrian crossing through the fast moving vehicular traffic



Install a midblock crosswalk where there is a significant pedestrian desire line. Frequent applications include midblock bus stops, parks, plazas, building entrances

DESIGN PROPOSAL

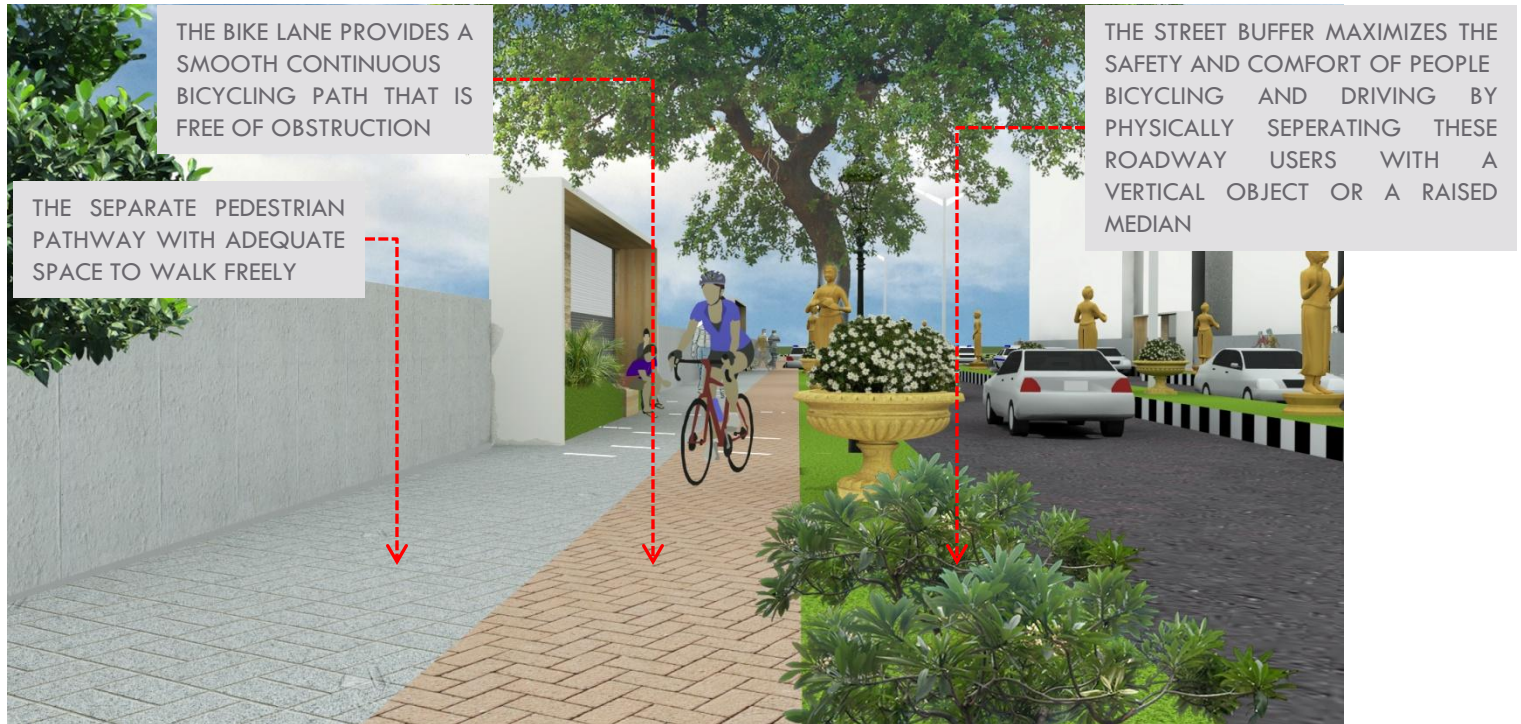
STREET SECTION



SECTION SHOWING THE SIDEWALK ZONE ON BOTH THE SIDES AND THE ROAD WITH THE MEDIAN

DESIGN PROPOSAL

SIDEWALK ZONE



THE SIDEWALK IS THE AREA WHERE PEOPLE INTERFACE WITH ONE ANOTHER AND WITH BUSINESSES MOST DIRECTLY IN AN URBAN ENVIRONMENT

DESIGN PROPOSAL

SIDEWALK CANOPY- OPTION 1



SIDEWALK CANOPY WITH CURVED ROOF AND PLANTER WITHIN, THE COLOURED SCREENS CAN HAVE INSPIRATIONAL SLOGANS RELATED TO GREEN ENVIRONMENT AND CLEANLINESS FOR SOCIAL AWARENESS

DESIGN PROPOSAL

SIDEWALK CANOPY- OPTION 2



SIDEWALK CANOPY WITH ANGLED ROOF AND PLANTER WITHIN, THE CUTOUT ON TOP TO DRAW LIGHT IN THE SHED

January 12, 2017

DESIGN PROPOSAL

SIDEWALK CANOPY- OPTION 3



SIDEWALK CANOPY WITH STRAIGHT LINE CONFIGURATION AND LANDSCAPED MOUNT WITHIN, THE ENGRAVED/PAINTED PIECE IN THE CENTRE CAN HAVE INSPIRATIONAL SLOGANS WRITTEN ON IT

DESIGN PROPOSAL

SCREENING DESIGN AT NALLAH



SCREENING AT THE NALLAH AREA , AVOIDS THE UNPLEASANT VIEW AND THE SLOGANS RELATING GREEN ENVIRONMENT WRITTEN ON IT SPREADS SOCIAL AWARENESS

DESIGN PROPOSAL

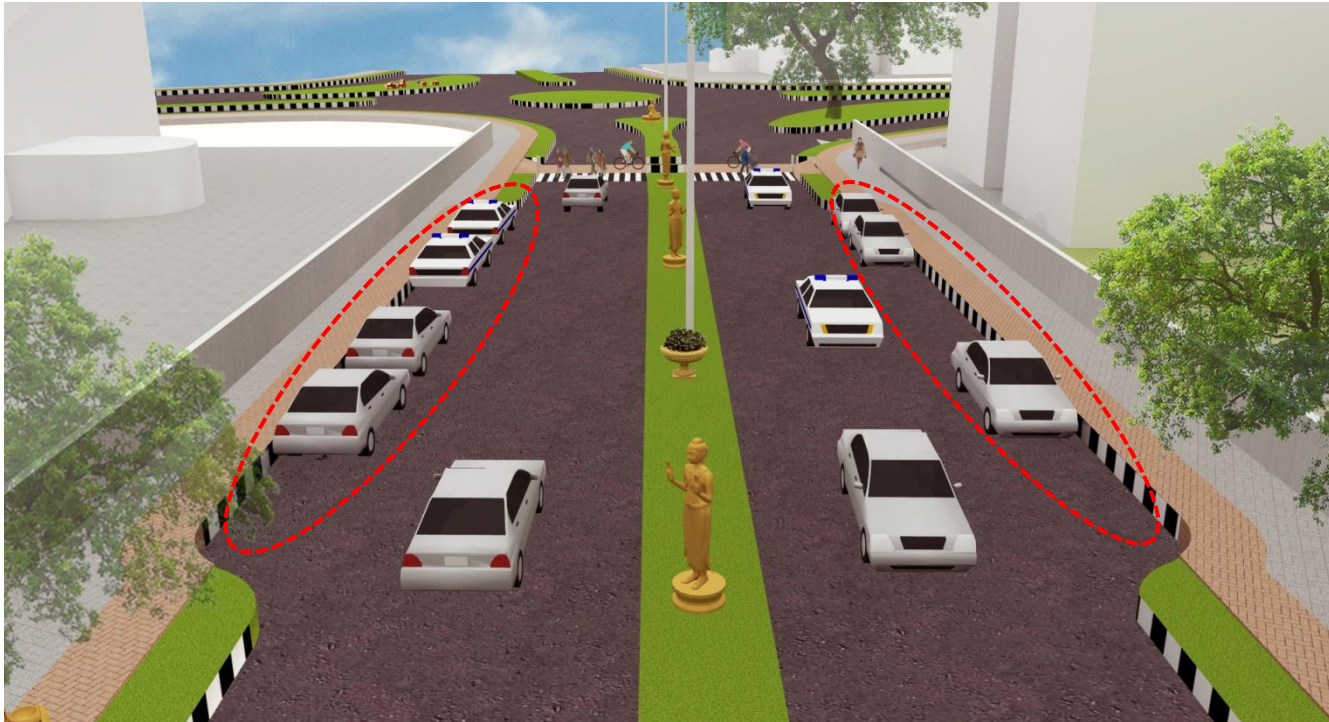
MEDIAN DESIGN



MEDIAN BEING THE DIVISION OF THE STREET AND MOSTLY VISIBLE ENTITY, ITS BEEN BEAUTIFIED BY THE SCULPTURE- RELATED TO THE HISTORICAL IMPORTANCE OF THE PLACE

DESIGN PROPOSAL

PARKLETS ALONG THE ROADSIDE



ON-STREET PARKING SUPPLEMENTS THE STREET BUFFER, FURTHER INCREASING THE HORIZONTAL SEPERATION FROM PEOPLE BICYCLING AND DRIVING.ALSO, IT WOULD STOP PEOPLE FROM PARKING ON ROAD

DESIGN PROPOSAL

BUS STOPS



THE BUS STOPS WITH DROP-OFFS CAN BE REDESIGNED TO GO IN SYNC WITH THE ENTIRE STREET DESIGN AND CAN HAVE SLOGANS FOR SOCIAL AWARENESS

DESIGN PROPOSAL

BUS STOPS



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DESIGN PROPOSAL

DESIGN ELEMENT AT COMPOUND WALL



THE COMPOUND WALL CAN HAVE MURALS RELATING TO THE ART OF THE CITY AND ALSO THE ELEMENTS WITH HISTORICAL IMPORTANCE. IT CAN BE INSTALLED AT SPECIFIC AREAS OF IMPORTANCE OR THE AREAS WHICH NEED TO BE HIGHLIGHTED THROUGHOUT THE STREET, FOR EXAMPLE, NEAR THE PARKS, OR AT THE JUNCTIONS ETC.

DESIGN PROPOSAL

COMPOUND WALL DESIGN



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DESIGN PROPOSAL

LOCATION OF THE HAAT AND HAWKERS ZONE



THE HAWKERS ZONE IS SPECIFICALLY GIVEN IN THE AREAS WHERE IT MAY NOT BE POSSIBLE TO ERADICATE THEM, BUT CAN BE REPLACED AND ARRANGED IN PROPER WAY.

DESIGN PROPOSAL

HAAT ALONG THE STREET



HAAT ALONG THE STREET SIDE TO ACCOMMODATE THE STREET HAWKERS (STREET FOOD) AND THE LOCAL ARTISANS TO PROMOTE THE LOCAL ART OF THE CITY AND ALSO LET PEOPLE GATHER AT ONE PLACE TO ENJOY THE FOOD AND ART

DESIGN PROPOSAL

HAAT ALONG THE STREET



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DESIGN PROPOSAL

FOOD STALLS AT HAAT



January 12, 2017

DESIGN PROPOSAL

INSIDE OF THE HAAT



January 12, 2017

DESIGN PROPOSAL

HAWKERS ZONE



HAWKER'S ZONE CAN BE PROVIDED AT REGULAR INTERVALS ALONG THE ROAD. THE EXISTING HAWKERS CAN BE BROUGHT TOGETHER AT SPECIFIC POINTS INSTEAD OF BEING SCATTERED. THIS WILL PREVENT CHAOS AND DISRUPTION OF TRAFFIC. THESE ZONES CAN BE ACCESSED FROM THE PEDESTRIAN PATHWAY.

DESIGN PROPOSAL

HAWKERS ZONE



January 12, 2017

DESIGN PROPOSAL

HAWKERS ZONE



January 12, 2017

DESIGN PROPOSAL

STREET LIGHTING



Solar street lights are raised light sources which are powered by photovoltaic panels generally mounted on the lighting structure or integrated in the pole itself. The photovoltaic panels charge a rechargeable battery, which powers a fluorescent or LED lamp during the night.



Contemporary

Classic

Transitional

Lighting in different styles for different areas

It can also have digital/non digital signage boards, or marketing ads enhances business opportunities

DESIGN PROPOSAL

LANDSCAPING



Landscaping of the sidewalks can have different types of trees

Long/short trees, ornamental shrubs to accentuate the green stripe of the sidewalk area

THANKYOU

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