PROJECT ON IMPROVEMENT OF TRAFFIC MANAGEMENT CAPACITY IN LAHORE CENTRAL AREA

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Pilot Project Area and Road Safety Campaign

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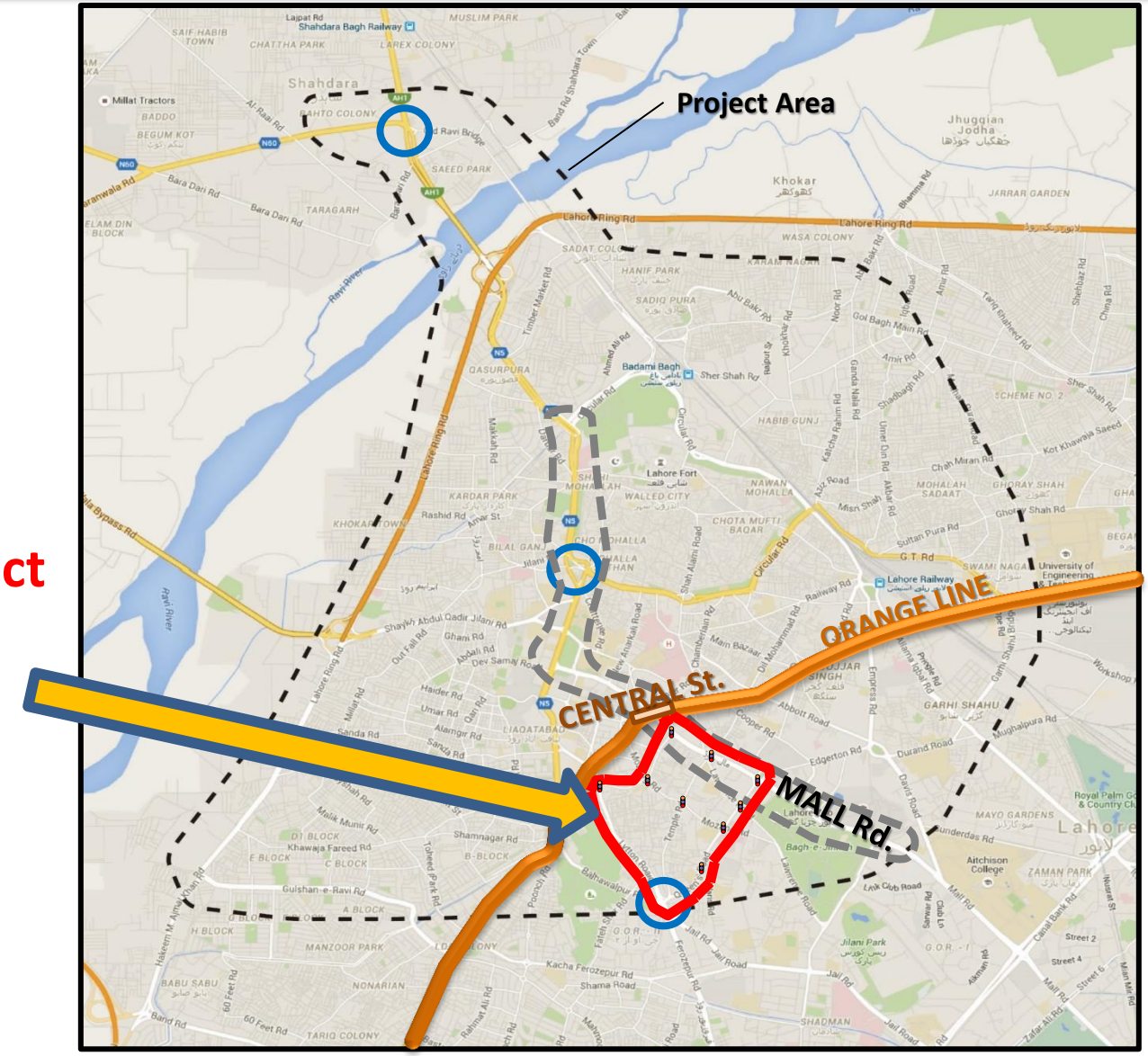
Traffic Engineering & Transport Planning Agency (TEPA)

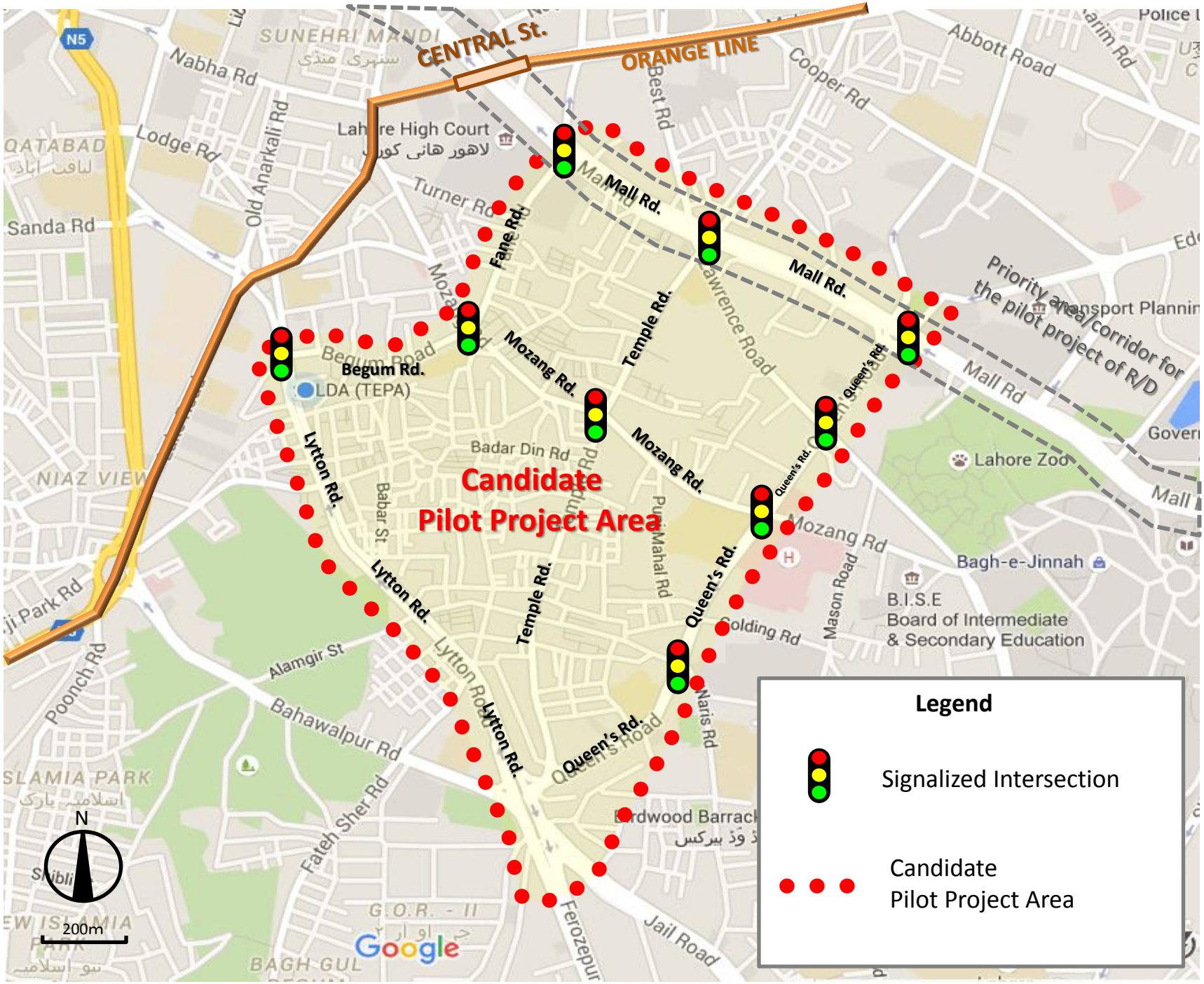
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Selection of the Pilot Project Area

Pilot Project Area



Ravi River West bank – Bund Road – Gulshan Ravi Main Road – Lahore Zoo - Shalimar Road – Railway East Area


CENTRAL St.
ORANGE LINE
Mall Rd.
Fane Rd.
Mozang Rd.
Temple Rd.
Begum Rd.
Lytton Rd.
Queen's Rd.
Candidate
Pilot Project Area
Priority transport Planning Area/corridor for the pilot project of R/D
Legend
Signalized Intersection
Candidate
Pilot Project Area
Google

Selection of the Pilot Project Area

The Pilot project area shown in the figure is surrounded by Mall Road, Lytton Road, Queens Road and Begum-Fane Road. Its selection is based on the following reasons:

- Priority area/corridor for the pilot project during the R/D of this project is Mall Road. However, construction by open cut system of the Orange Line underground station at Mall Road/Mcleod Road will start soon.

- Traffic problems in the Lahore Central Area are also shown in this area. It is like a showcase of the Lahore Central Area's traffic issues.

Selection of the Pilot Project Area

Mozang Adda
1. Encroachment of street vendors and on-street parking
2. No separate left turn lane
3. No proper geometric design
4. No pavement marking for lane separation
5. Occupied by parked vehicles
6. The location of U-turn is very close to intersection and is causing congestion
7. The open manholes are present in the center of the road causing problems

Regal Chowk
1. No proper geometric design
2. Signal location and phasing
3. Parking problems
4. Lack of pedestrian facilities
5. Wrong way traffic movements towards Safanwala chowk

Chairing cross, Mall road, Faisal Chowk
1. No proper geometric design
2. Inadequate signal phasing pattern
3. Signal timing is not according to volume
4. Frequent protests occur
o slip lane for left turn coming from
l side. Right turn from opposite side is
roper

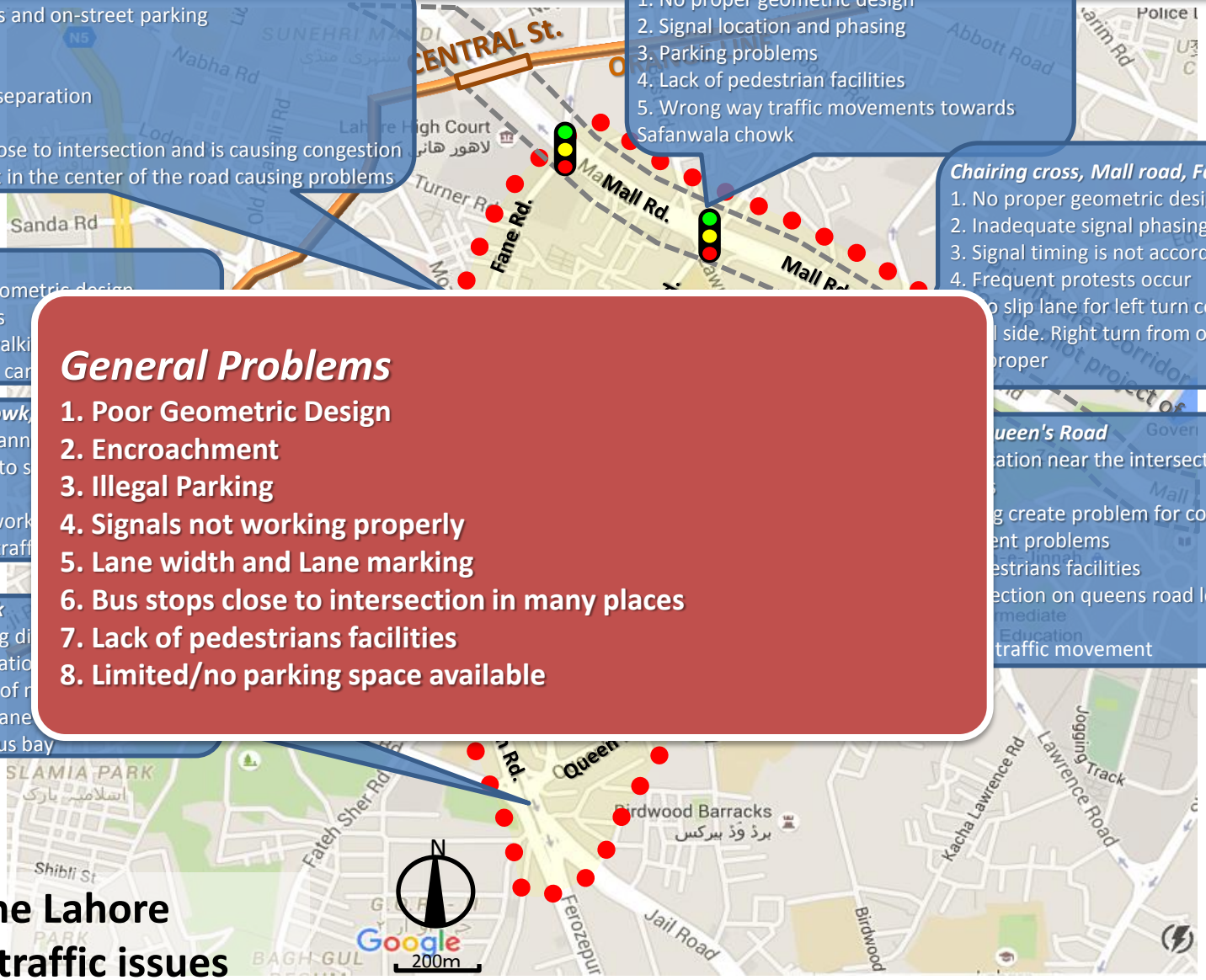
Begum Road
1. No proper geometric design
2. Parking issues
3. Absence of walki
4. Venders with car

Safanwala Chowk
1. No traffic chann
2. No medians to s
traffic
3. Signals not work
4. Wrong way traff

Qartaba Chowk
1. Small merging di
2. Improper locatio
3. High volume of r
many sides.no lane
4. No proper bus bay

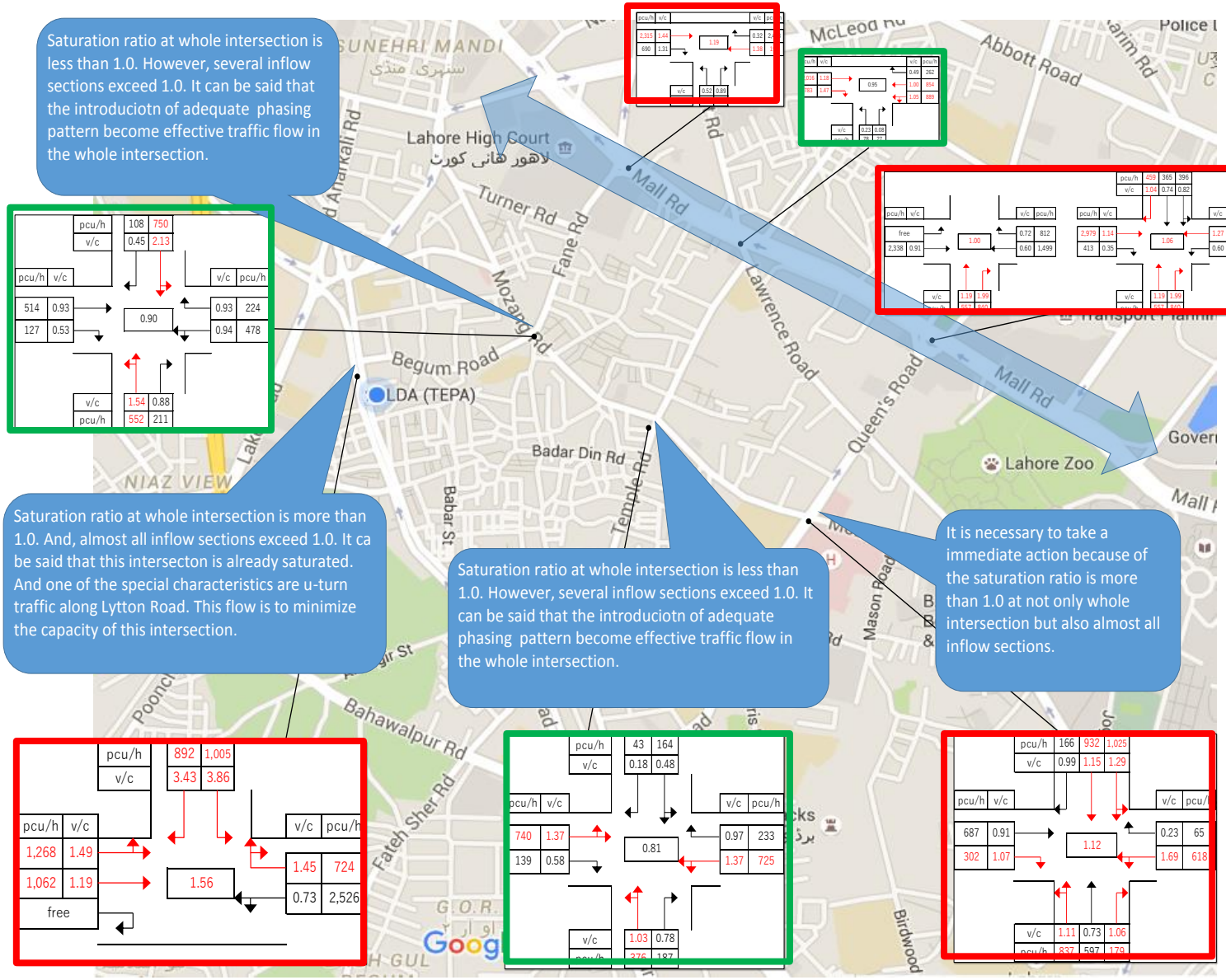
ueen's Road
ation near the intersection
g create problem for coming traffic
ent problems
estrians facilities
ection on queens road left turn is not
traffic movement

General Problems
1. Poor Geometric Design
2. Encroachment
3. Illegal Parking
4. Signals not working properly
5. Lane width and Lane marking
6. Bus stops close to intersection in many places
7. Lack of pedestrians facilities
8. Limited/no parking space available



Showcase of the Lahore Central Area's traffic issues

Intersections - Signal Phasing Issues



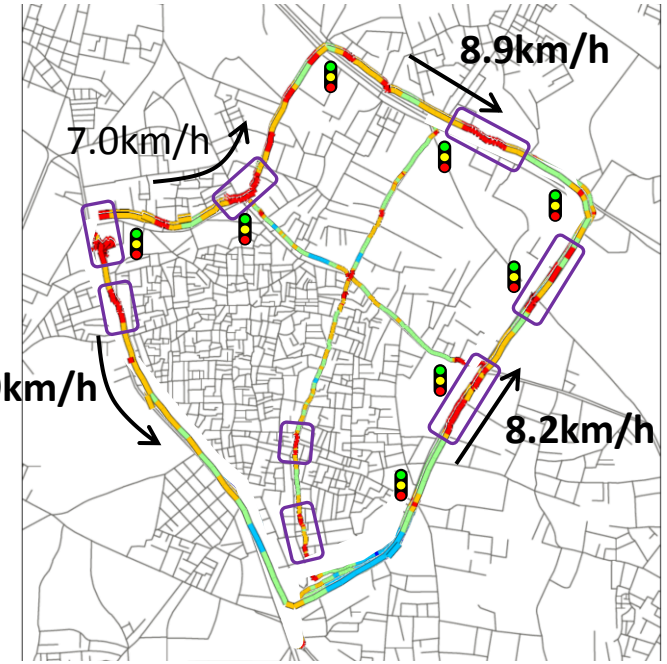
Mall Road is the trunk road in Lahore because of traffic congestions can be seen along the Mall Road and inflow lane from the secondary road connecting to the Mall Road.
Therefore, intorduciton of the coordinting traffic signal control can be one of the effective countermeasures in the pilot project area.

- Some of the intersections have inefficient signal phasing.
- There is a possibility of reducing traffic congestion by changing signal phasing according to actual traffic flow.

Travel Speed Survey of the Pilot Project Area

- ✔ Travel speed is slower in daytime on Begum- Fane, Mall, Queens, Mozang and Lytton Road.
- ✔ Temple and Begum-Fane have travel speed below 20km/h all the day.

Day time Travel Speed (13:00-14:00)

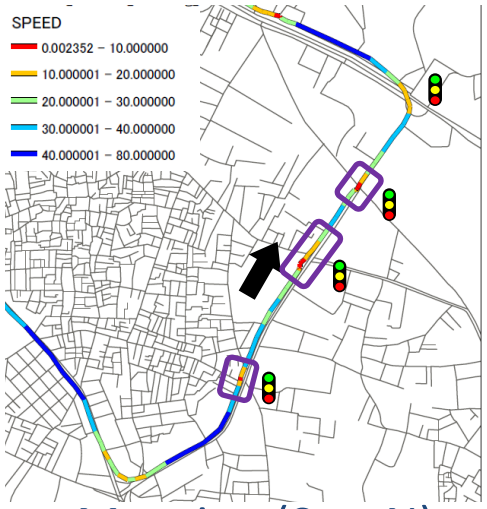


No.	Road Name	Direction	Start point	End point	Length(km)	Peak Hour	Travel Speed (km/h)	
1	Begum-Fane	N to S	Begum Road	Lahore high Court	1.13	Morning	18.26	
						Day time	12.40	
						Evening	13.67	
		S to N	Lahore high Court	Begum Road	0.93	Morning	15.14	
						Day time	6.98	← Lowest
						Evening	13.92	
2	Mall Road	E to W	Faisal Chowk	Lahore high Court	0.85	Morning	26.12	
						Day time	9.00	
						Evening	15.00	
		W to E	Legal high Court	Faisal Chowk	0.97	Morning	26.81	
						Day time	18.34	
						Evening	10.26	
3	Queens Road	S to N	Qartaba Chowk	Faisal Chowk	1.53	Morning	21.02	
						Day time	8.16	
						Evening	22.38	
		N to S	Faisal Chowk	Qartaba Chowk	1.55	Morning	16.30	
						Day time	17.76	
						Evening	19.58	
4	Lytton Road	W to E	Begum Road	Qartaba Chowk	1.25	Morning	30.45	
						Day time	19.63	← Highest
						Evening	23.22	
		E to W	Qartaba Chowk	Begum Road	1.43	Morning	21.38	
						Day time	8.91	
						Evening	24.41	
5	Mozang Road	E to W	Ganga Ram	Mazang Adda	0.91	Morning	23.94	
						Day time	12.15	
						Evening	19.02	
		W to E	Mazang Adda	Ganga Ram	0.90	Morning	20.79	
						Day time	14.78	
						Evening	17.13	
6	Temple Road	S to N	Qartaba Chowk	Regal Chowk	1.52	Morning	14.06	
						Day time	14.30	
						Evening	7.55	
		N to S	Regal Chowk	Qartaba Chowk	1.50	Morning	11.38	
						Day time	14.42	
						Evening	12.51	

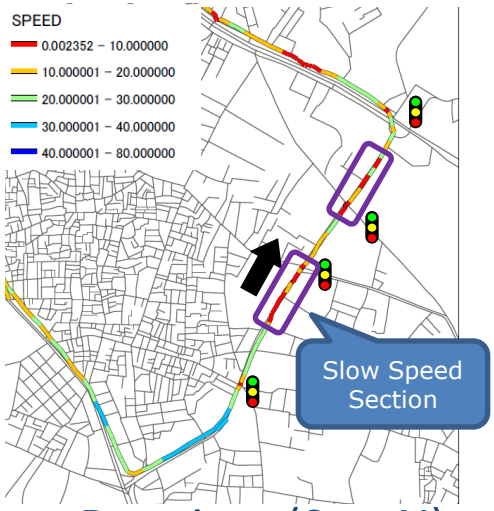
Travel Speed Survey of the Pilot Project Area

What are causes of delay?

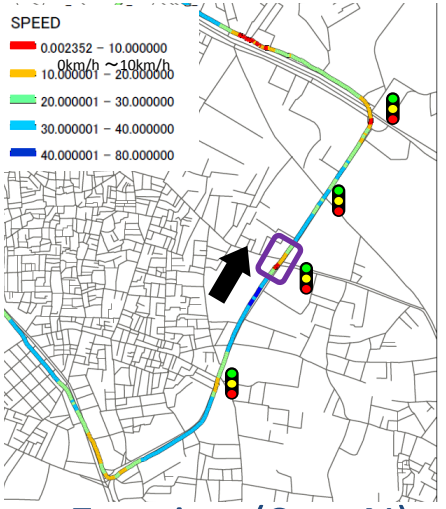
✔ Main causes of delay are **Signal stop, Lane Encroachment and Illegal Parking**



Morning (S to N)



Day time (S to N)



Evening (S to N)

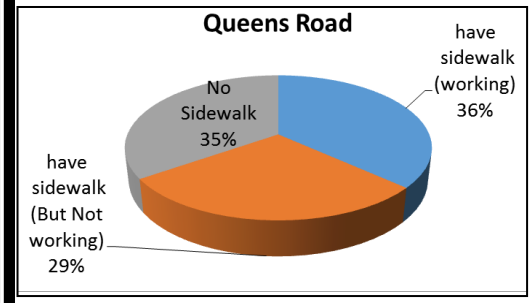
No.	Road Name	Direction	Start point	End point	Length(km)	Length(km)	Peak Hour	Travel Speed (km/h)	Travel Time (min.)
3	Queens Road	S to N	Qartaba Chowk	Faisal Chowk	1.53	1.52	Morning	21.02	4.33
						1.54	Day time	8.16	11.33
						1.53	Evening	22.38	4.10
		N to S	Faisal Chowk	Qartaba Chowk	1.55	1.20	Morning	16.30	4.42
						1.75	Day time	17.76	5.92
						1.71	Evening	19.58	5.23

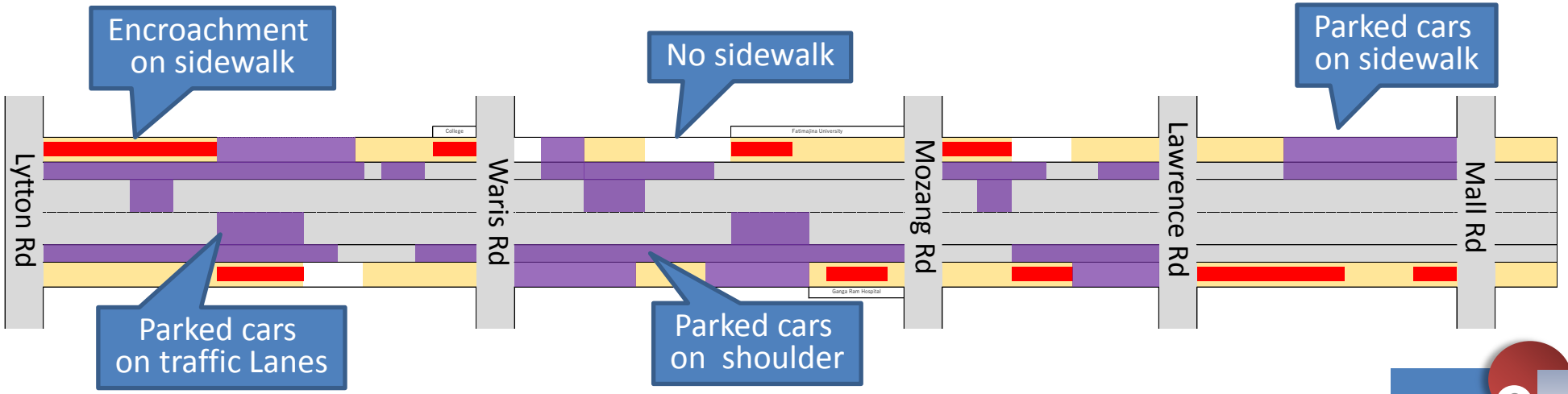
Road Condition Survey of Pilot Project Area

What is the Current status of corridor? **Queen Road**

- ✔ On-street parking
- ✔ Encroachment
- ✔ Pedestrian facility

Queens	Rate		
	Traffic Lane, Sholder		
	No Problem	Encroach -ment	Parked cars
Right Sholder	33%	0%	67%
Traffic Lane (Right)	89%	0%	11%
Traffic Lane (Left)	87%	0%	13%
Left Sholder	31%	0%	69%





Road Condition Survey of Pilot Project Area corridors

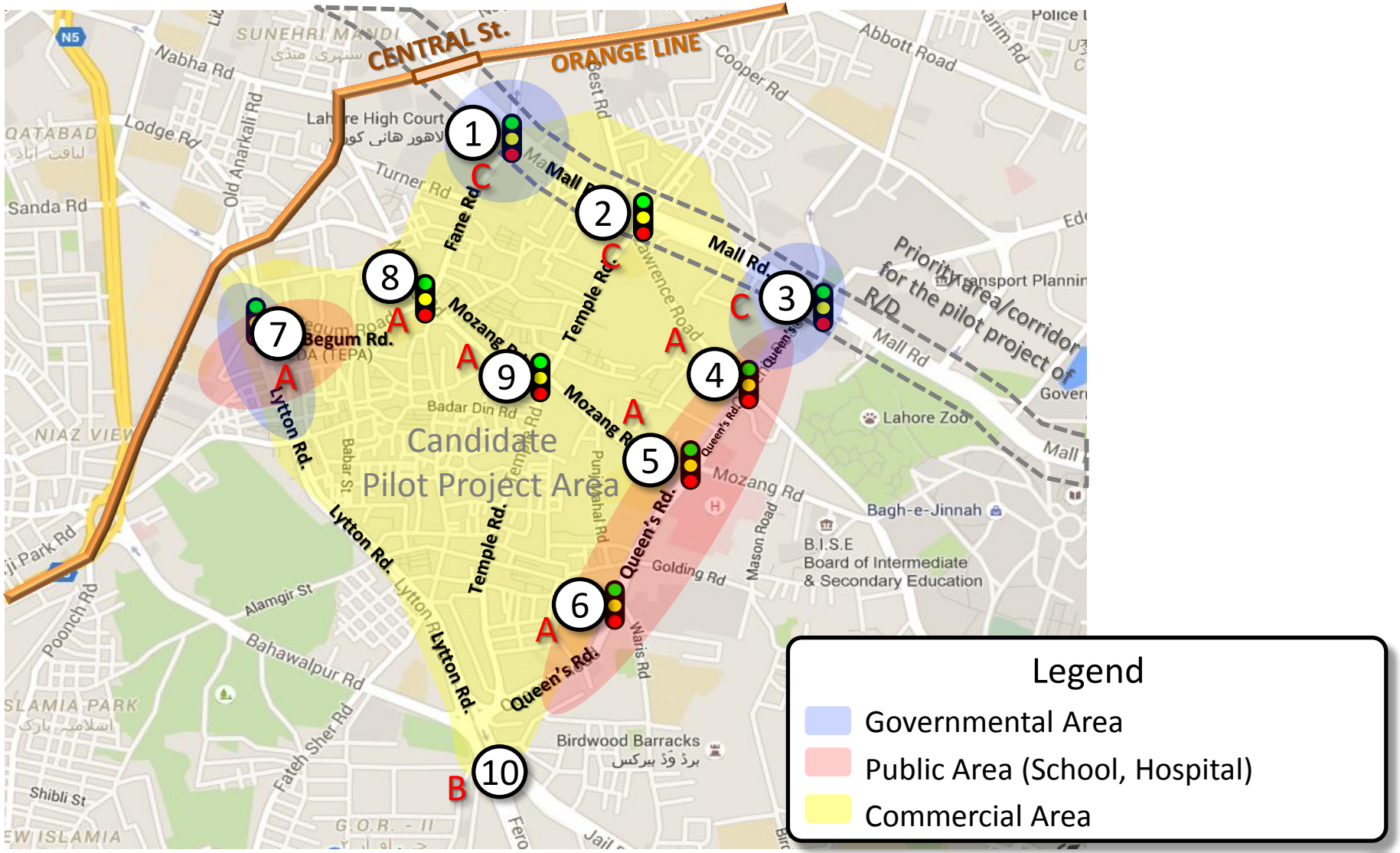
What is the Current status of corridor?

✔ On-street parking ✔ Encroachment ✔ Pedestrian facility

NO	Road name	Place	No Problem	Encroach -ment	Parked cars
1	Begum - Fane Rd	Right Sholder	54%	0%	46%
		Traffic Lane (Right)	100%	0%	0%
		Traffic Lane (Left)	85%	0%	15%
		Left Sholder	19%	0%	81%
2	Queens Rd	Right Sholder	54%	0%	46%
		Traffic Lane (Right)	100%	0%	0%
		Traffic Lane (Left)	85%	0%	15%
		Left Sholder	19%	0%	81%
3	Mozang Rd	Right Sholder	14%	4%	81%
		Traffic Lane (Right)	100%	0%	0%
		Traffic Lane (Left)	94%	2%	3%
		Left Sholder	11%	19%	70%
4	Lytton Rd	Right Sholder	43%	0%	57%
		Traffic Lane (Right)	96%	0%	4%
		Traffic Lane (Left)	100%	0%	0%
		Left Sholder	63%	0%	37%

NO	Road name	Start point	End point	Right/Left	have sidewalk (working)	have sidewalk (Not working)	No Sidewalk
1	Begum - Fane Rd	Mall Rd	Lytton Rd	Right	68%	21%	11%
				Left	67%	1%	32%
2	Queens Rd	Mall Rd	Lytton Rd	Right	32%	27%	41%
				Left	40%	31%	29%
3	Mozang Rd	Begum-Fane Rd	Queen's Rd	Right	11%	14%	75%
				Left	29%	0%	71%
4	Lytton Rd	Begum-Fane Rd	Queen's Rd	Right	23%	75%	12%
				Left	23%	53%	24%

Inventory Data Analysis –Intersections



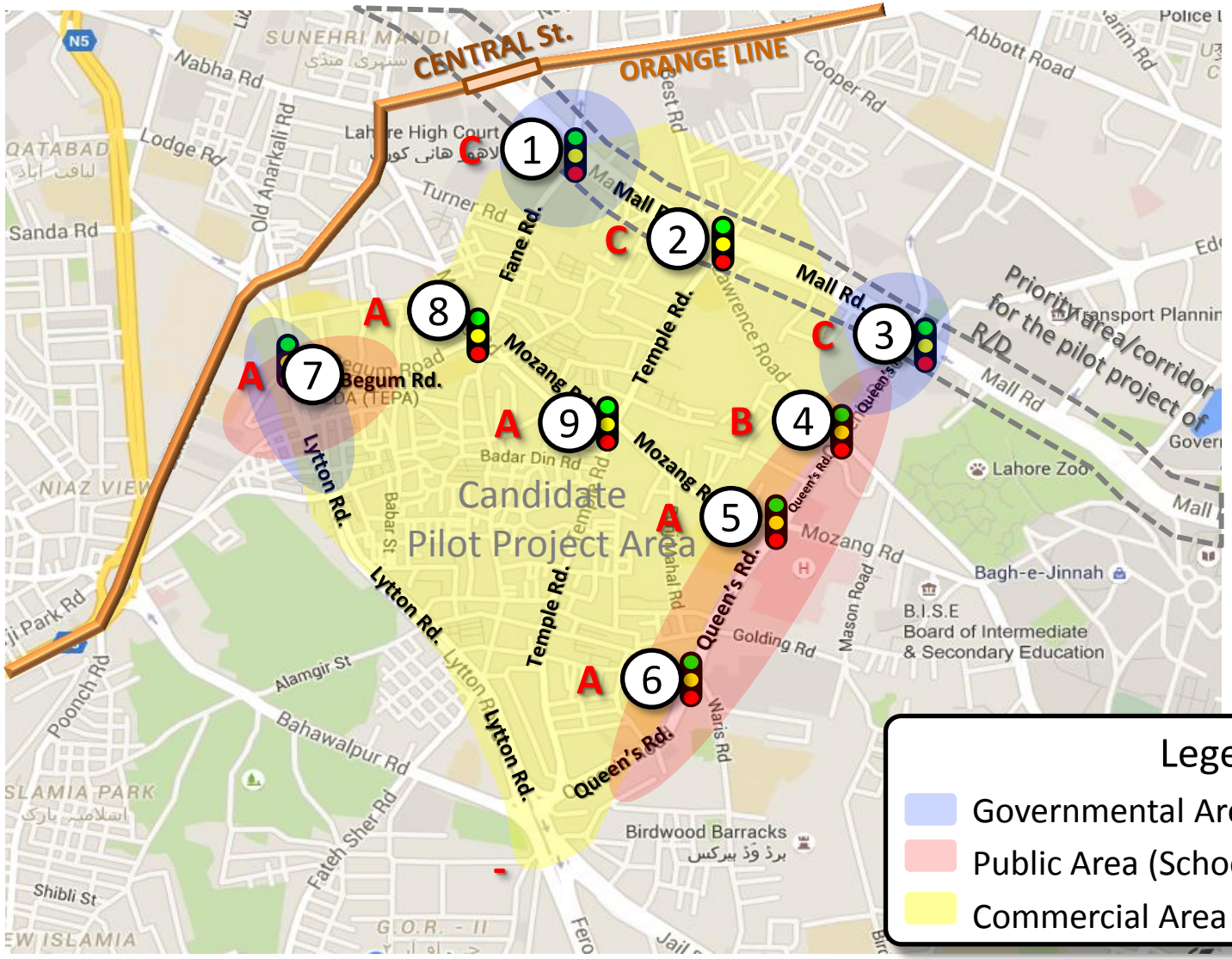
Inventory Data Analysis –Intersections

No.	Intersection Name	size	Pedestrian Facility	Road Markings	Encroachment	Parking	Overall Evaluation
1	Lahore High Court	Large	B	B	C	C	C
2	Regal Chowk	Large	B	C	C	B	C
3	Faisal Chowk	Large	A	C	C	B	C
4	Plaza Cinema	Medium	A	C	A	B	A
5	Ganga Ram	Medium	A	B	B	B	A
6	Waris Road	Medium	A	B	A	A	A
7	Begum Road	Medium	A	A	B	C	A
8	Mazang Adda	Small	A	A	A	A	A
9	Safanwala Chowk	Small	A	A	A	A	A
10	Qartaba Chowk	Large	A	B	B	C	B

Evaluation (A: Problematic ; B: Sometimes problematic, C: Basically acceptable)
Overall Evaluation (A: more than two 'A's; B: other than A & C; C: more than two 'C's)

5. Ganga Ram has single 'A' but the other factors have 'B'

Inventory Data Analysis –Traffic Signals

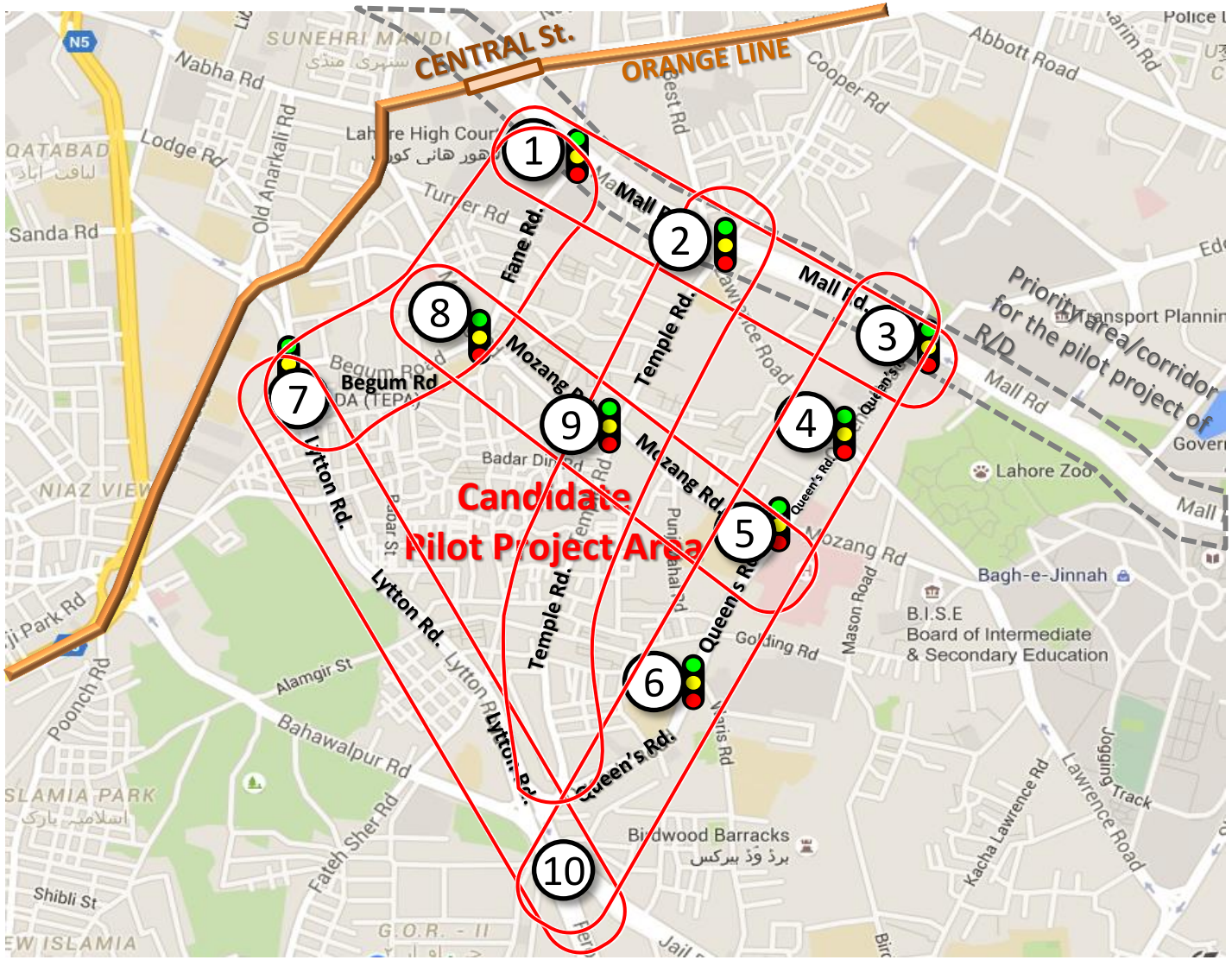


Inventory Data Analysis –Traffic Signals

No.	Intersection Name	Signal Operation	Controller	Signal Pole	Signal Lantern	Hand Hole	Int. Size	Overall Evaluation
1	Lahore High Court	B	C	B	B	B	Large	C
2	Regal Chowk	B	C	B	B	B	Large	C
3	Faisal Chowk	B	C	B	B	B	Large	C
4	Plaza Cinema	A	C	B	B	B	Medium	B
5	Ganga Ram	A	C	B	A	B	Medium	A
6	Waris Road	A	A	C	A	B	Medium	A
7	Begum Road	A	A	B	A	B	Large	A
8	Mazang Adda	A	C	B	A	C	Medium	A
9	Safanwala Chowk	A	A	C	A	A	Medium	A

Evaluation(A: Problematic ; B: Sometimes problematic, C:Basically acceptable)
Overall Evaluation(A: more than three ‘A’s ; B: one or two ‘A’s ; C : zero ‘A’)

Inventory Data Analysis –Corridors



Temple Road is excluded from Corridor because it has less traffic due to its bad position in conjunction with a connecting road.

Corridor Analysis

Corridor No.	Corridor Name	Land Use	Transport/Road Function	Traffic Volume	Vehicular Type (Modal Share)	Pedestrians	Corridor Characteristics
1	Mall Road	Governmental / Business/Commercial	Trunk Road (Bus Route)	10,000-20,000 veh./h	Mortorcycle:65% Car: 25% Rikishaw :10%	Not many	Not only one of the trunk roads but also a symbolic road in Lahore,
2	Begum – Fane Road	Commercial / Governmental	Local Roads	10,000-15,000 veh./h	Mortorcycle:60% Car: 20% Rikishaw :20%	Not many but walk on the carriageway	South-north local road, mainly catering to through traffic
3	Mozang Road	Commercial	Local Road (Access to roadside shops)	5,000-10,000 veh./h	Mortorcycle:60% Car: 20% Rikishaw :20%	Many near the shops at intersection	East-west local road supporting the small business and industry along the corridor
4	Queens Road	Commercial / Public	Collector Road (Bus Route)	10,000-20,000 veh./h	Mortorcycle:60% Car: 20% Rikishaw :20%	Many near school & hospital	South-north trunk road, mainly catering to through traffic
5	Lytton Road	Commercial	Trunk Road (BRT & Bus Route)	15,000 veh./h	Mortorcycle:65% Car: 20% Rikishaw :15%	Not many along sidewalk but many crossing pedestrians on the carriageway	Not only one of the trunk roads but also major public transport corridor
6	Temple Road (North/ South)	Commercial	Local Road (Access to roadside shops / facilities)	2,000 veh./h	Mortorcycle:75% Car:10 % Rikishaw :15%	Many near the shops / facilities	South-North local road supporting the small shops / facilities along the corridor

Inventory Data Analysis –Corridors-

Corridor No.	Corridor Name	Corridor Characteristics	Pedestrian Facility	Road Markings	Encroachment	Parking	Overall Evaluation
1	Mall Road	Not only one of the trunk roads but also a symbolic road in Lahore, like Ginza in Tokyo and Champs-Elysees in Paris	B	C	C	C	**C**
2	Begum – Fane Road	South-north local road, mainly catering to through traffic	A	A	B	A	**A**
3	Mozang Road	East-west local road supporting the small business and industry along the corridor	A	A	A	A	**A**
4	Queens Road	South-north trunk road, mainly catering to through traffic	A	B	B	A	**A**
5	Lytton Road	Not only one of the trunk roads but also major public transport corridor	B	B	B	B	**B**
6	Temple Road (North/South)	South-North local road supporting the small shops / facilities along the corridor	B / A	B / A	C / B	A / A	**B / A**

Evaluation (A: Problematic ; B: Sometimes problematic, C: Basically acceptable)

Pilot Project Area Candidate Intersections, Traffic Signals and Corridors

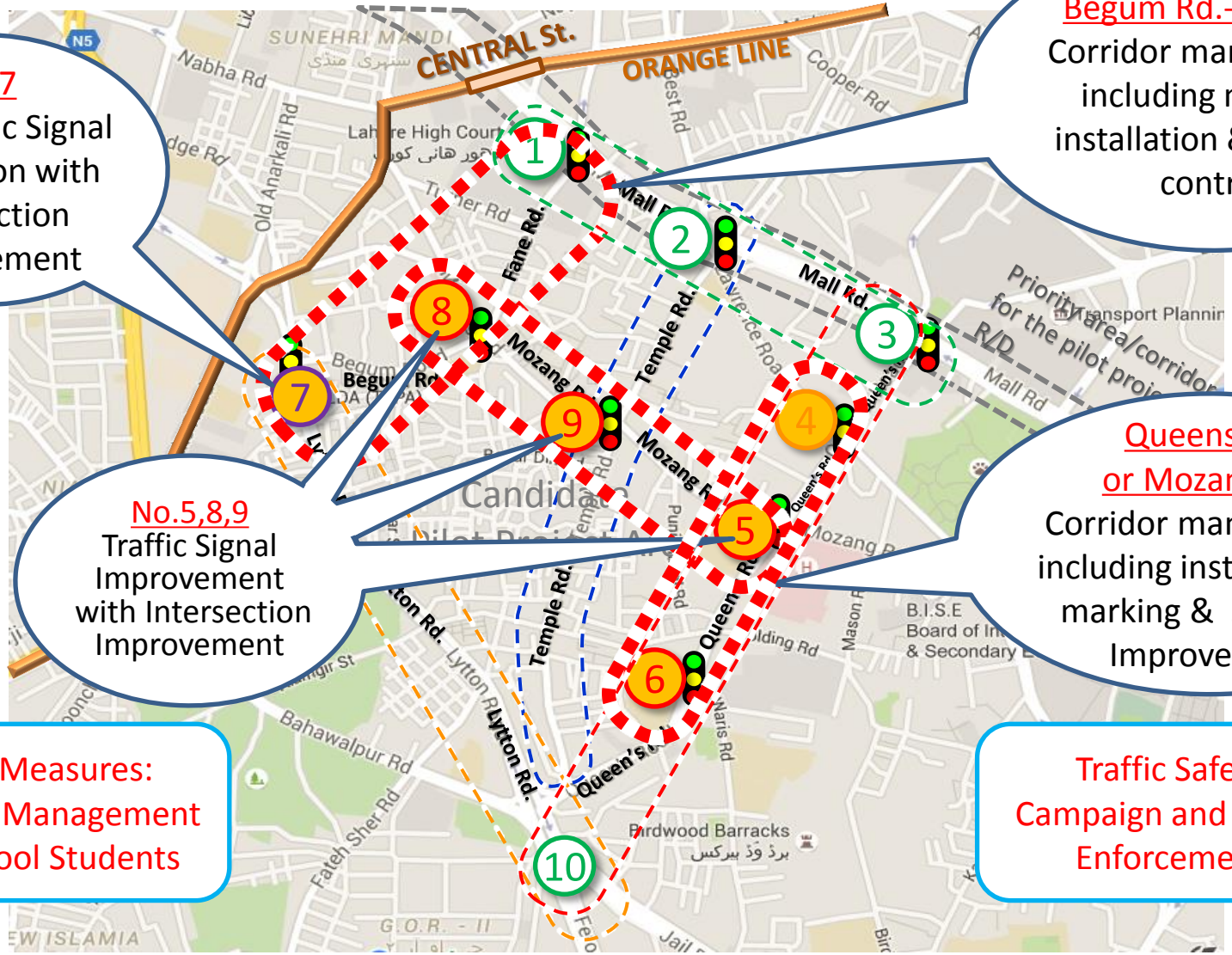
Following are the results based on the analysis of the above three aspects:

- Intersections selected are 4, 5, 6, 7, 8 and 9 (“A” more than two. No. 5 has only one “A” but others, all “B”),
- Signalized intersections selected are 5, 6, 7, 8 and 9 (“A” more than two), and
- Corridors selected are 2, 3 and 4 (with more than two “As”).

Therefore, the candidate menu for the selected intersections/traffic signals/ corridors in the Pilot Project is shown in the following Figure.

Candidate Intersection, Traffic Signal and Corridor

Pilot Project Menu



No.7
New Traffic Signal Installation with Intersection Improvement

Begum Rd.-Fane Rd.
Corridor management including marking installation & parking control

No.5,8,9
Traffic Signal Improvement with Intersection Improvement

Queens Rd. or Mozang Rd.
Corridor management including installation of marking & sidewalk Improvement

TDM Measures: Mobility Management for School Students

Traffic Safety Campaign and Traffic Enforcement

ROAD SAFETY PUBLICITY CAMPAIGNS

What is a road safety publicity campaign?

A road safety publicity campaign is part of a set of activities that aim to promote safe road use. Campaigns are of three types:

- To raise awareness of an issue or to inform (for example about new laws)
- To change attitudes (for example to improve public acceptance of road safety measures)
- To change behavior, as part of a package of measures (for example engineering and/or enforcement related to speeding).

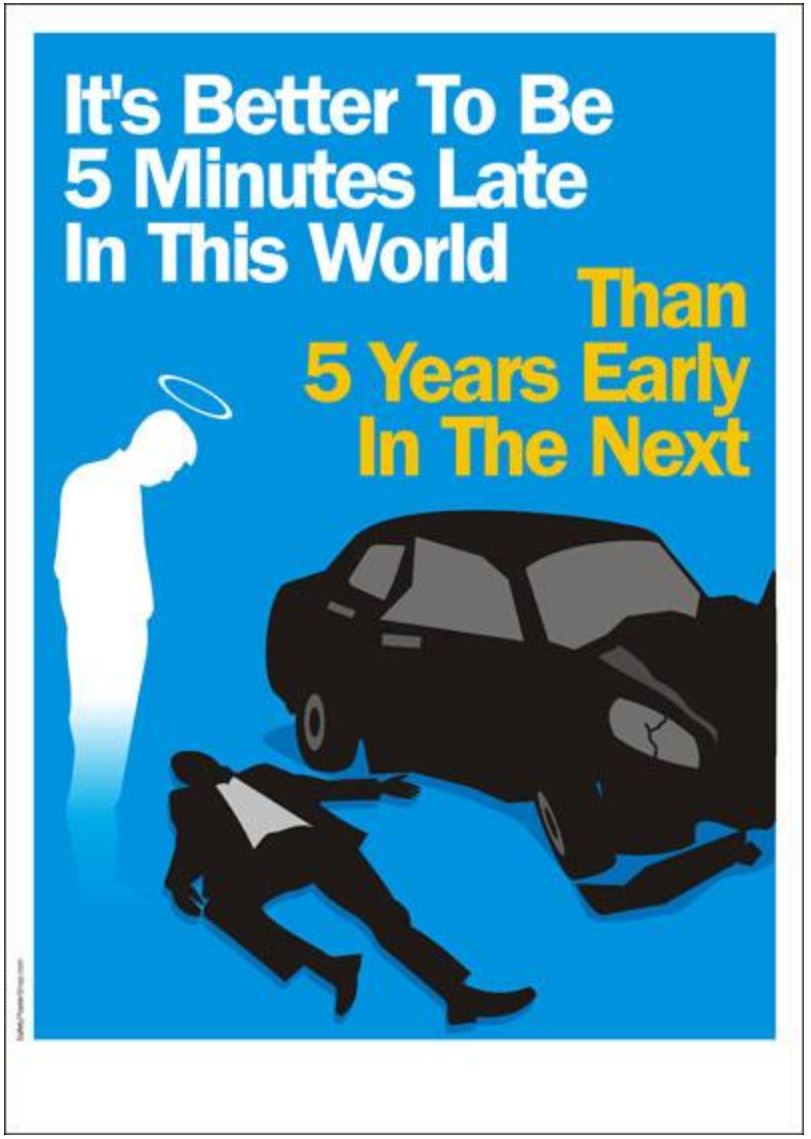
ROAD SAFETY PUBLICITY CAMPAIGNS

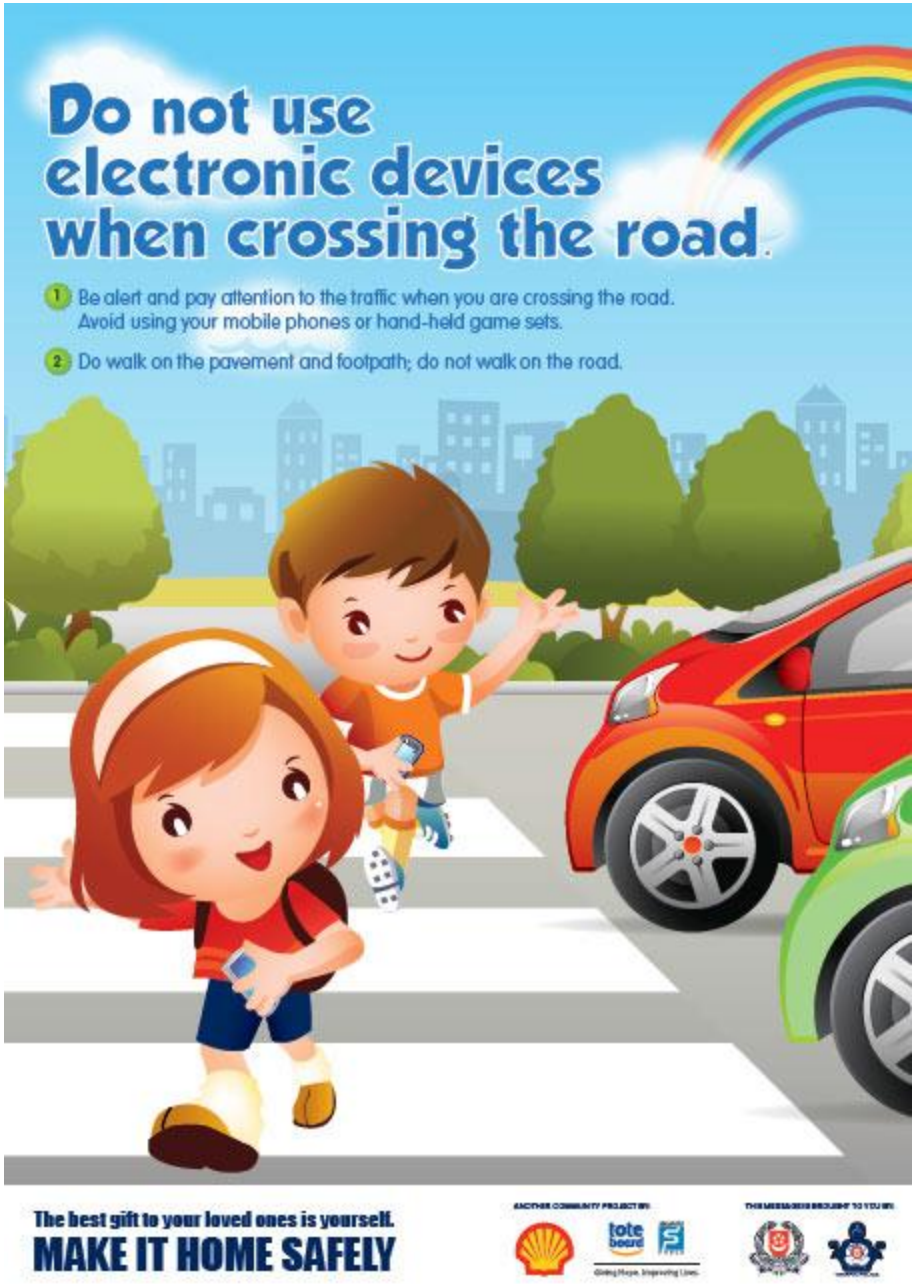
The elements of a campaign:

Following are the major elements of a traffic campaign:

- Target behavior
- Target audience
- Appeals to motivate the audience
- Message content
- Audience activation
- Media selection
- Campaign timing

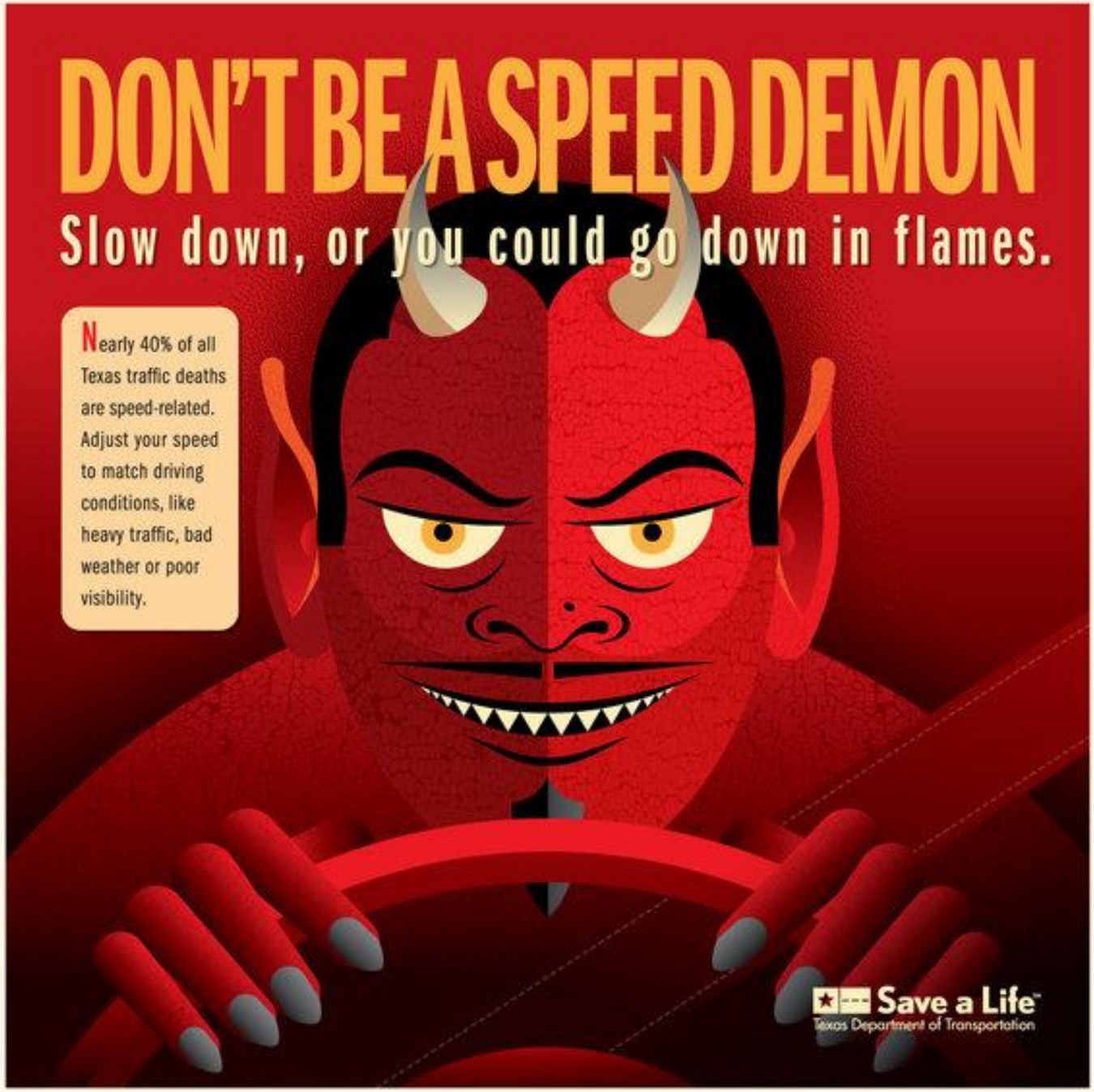

Safe Drive
Save Lives


It's Better To Be
5 Minutes Late
In This World
Than
5 Years Early
In The Next


Do not use electronic devices when crossing the road.
1 Be alert and pay attention to the traffic when you are crossing the road. Avoid using your mobile phones or hand-held game sets.
2 Do walk on the pavement and footpath; do not walk on the road.
The best gift to your loved ones is yourself.
MAKE IT HOME SAFELY


LOVE SAFETY.
MARRY RULES.
DIVORCE SPEED.
Practice Safety,
knowing is not enough.


Be aware.
Move with care.
watchtheroad.org


DON'T BE A SPEED DEMON
Slow down, or you could go down in flames.
Nearly 40% of all Texas traffic deaths are speed-related. Adjust your speed to match driving conditions, like heavy traffic, bad weather or poor visibility.
Save a Life
Texas Department of Transportation

Thank you

The Vision of Chief Minister

"Safe, Peaceful and Prosperous Punjab"

Your Safety, Our Priority

- Integrated Emergency Response (Police, Rescue 1122, Ambulance and Fire Brigade)
- Counter Terrorism Surveillance
- Intelligent Traffic Management System
- 4 G/LTE-A Communication
- Accountable Law Enforcement

15

PPIC3

BEGINNING OF A NEW POLICE CULTURE

Punjab Safe Cities Authority

PSCA

www.psca.gop.pk 111-11-77-22 www.facebook.com/punjabsafecities twitter.com/PSCAsafecities


PPIC3 CENTRE LAHORE
PUNJAB POLICE INTEGRATED COMMAND CONTROL & COMMUNICATION CENTRE, LAHORE

Challenges

Population

Urbanization

Other Actors

Economy

Environment

Politics

Emergency Response	Terrorism	Public Safety
Public Order	Crime	Traffic Management
Resources Allocation	Resource Management	Communication
Evidence Collection	Use of Information	Scattered Data

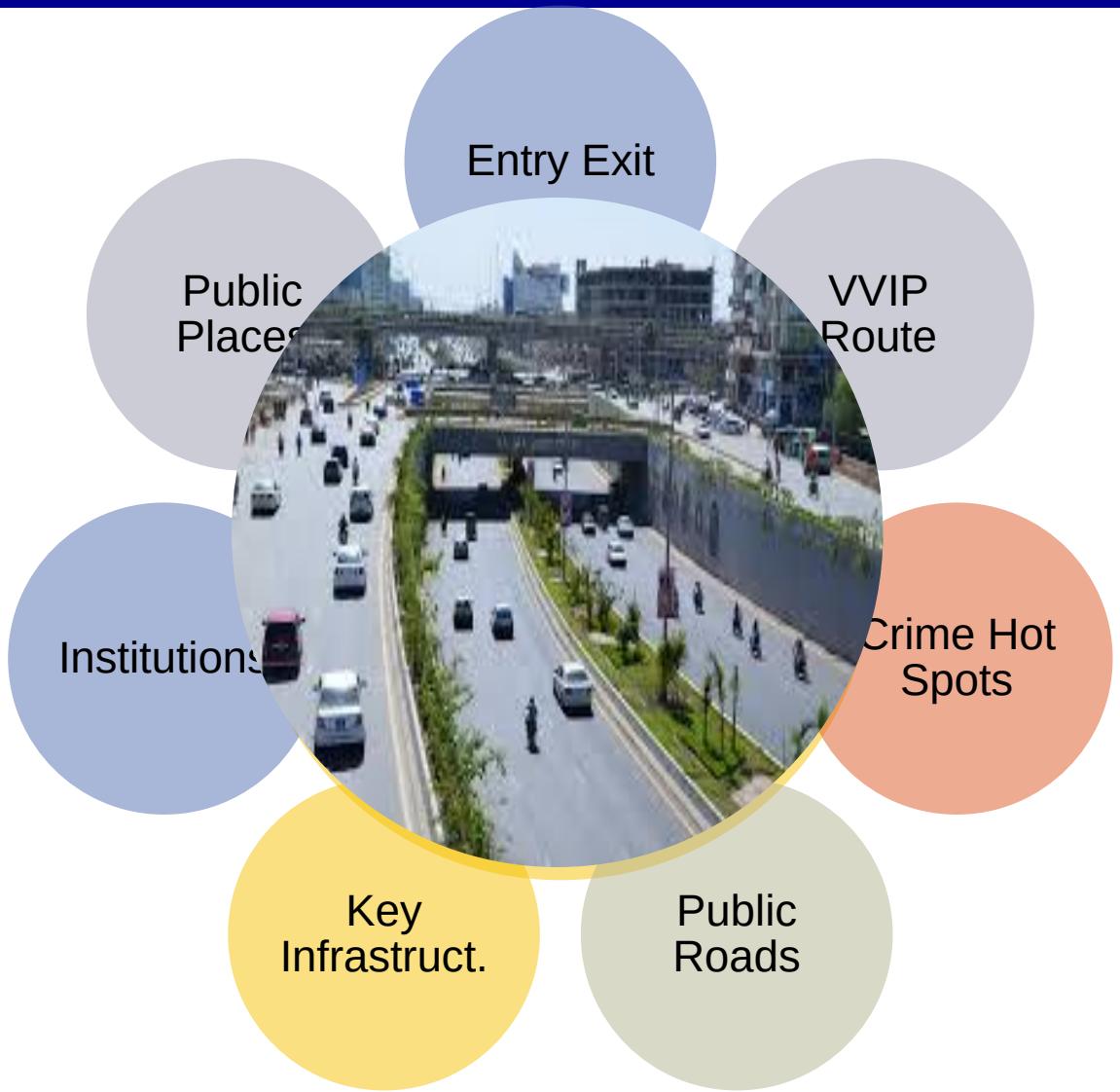
Limitations

- Public Perception : Attitudes, Practices, Values
- Social milieu : Education, Respect for Law etc.
- Response from Other Stakeholders
- Criminal Justice System
- Quality of Resources : Digital & Human
  - Police
  - NADRA
  - Excise
  - Health
  - Private Sector
- **HOPE drives us to make the difference!**

Scale: PPIC3 Programme in Punjab

Operations Monitoring Centre

Coverage


Entry Exit
Public Places
VVIP Route
Institutions
Crime Hot Spots
Key Infrastruct.
Public Roads

Integrated Emergency Response

- First Responders – Measureable Response
- PERU
- Dolphin
- Traffic Police in relevant Locations
- Operational Vehicles
- Ambulance – 1122
- Fire Fighting
- Other Emergencies

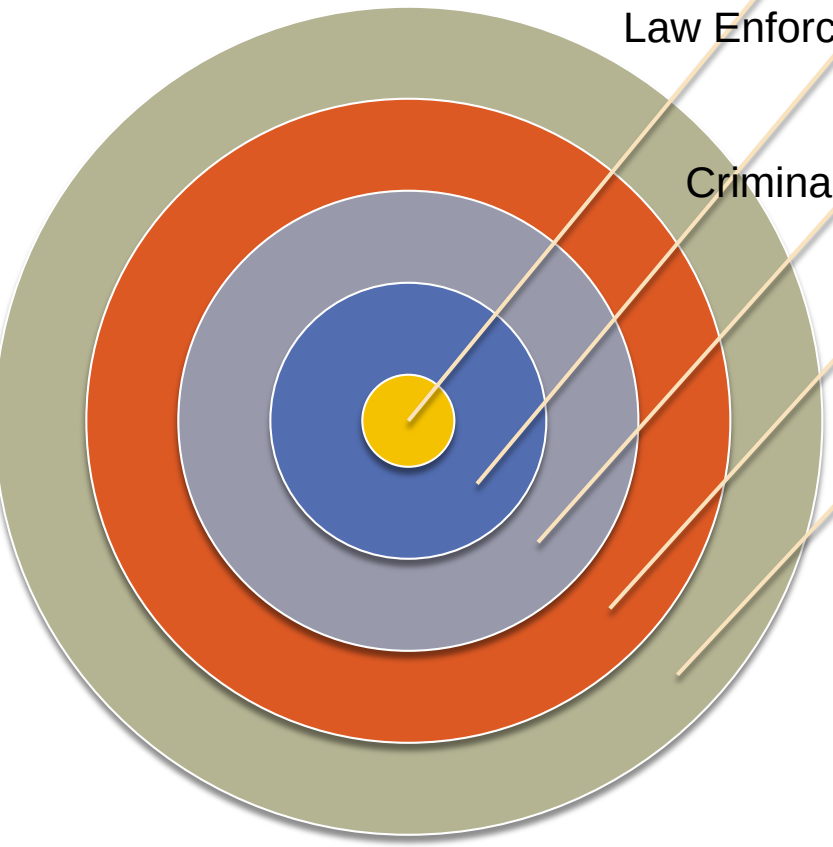
CT Surveillance

- IP NV Cameras
- Vehicular Cameras
- Dynamic Event Cameras
- Public Address and Listening System
- Watch List – Proclaimed Offenders
- Detection of Offenders/Suspects – Places
- 30 Days Data Tracking

Evidence Management

- Safe Handling, Preservation and Transfer
- Earmarking of Evidence - Authorisation
- Special Events Record
- Forensics Analysis of Videos
- Evidence Locker
- Awareness Campaign
- Consultations for Changes in Law
- Training of Investigators, Prosecutors & Judges

Stakeholder Engagement



Law Makers

Communities

Businesses

POLICE TRAFFIC MANAGEMENT SYSTEM (PTMS)

POLICE TRAFFIC MANAGEMENT SYSTEM (PTMS)

- Police Traffic Signal Control System (PTSC)
- Red Light Monitoring System (RLMS)
- Variable Messaging System (VMS)
- Journey Time Monitoring System (JTMS)
- E-Ticketing System (ETS)

Equipment

Traffic Signal Controller

Traffic Lights

Video Vehicle Detector

ANPR Camera

Frontend Storage Device

Speed Radar

Flash Light

LED Strobe Light

PROJECT DIVISIONS

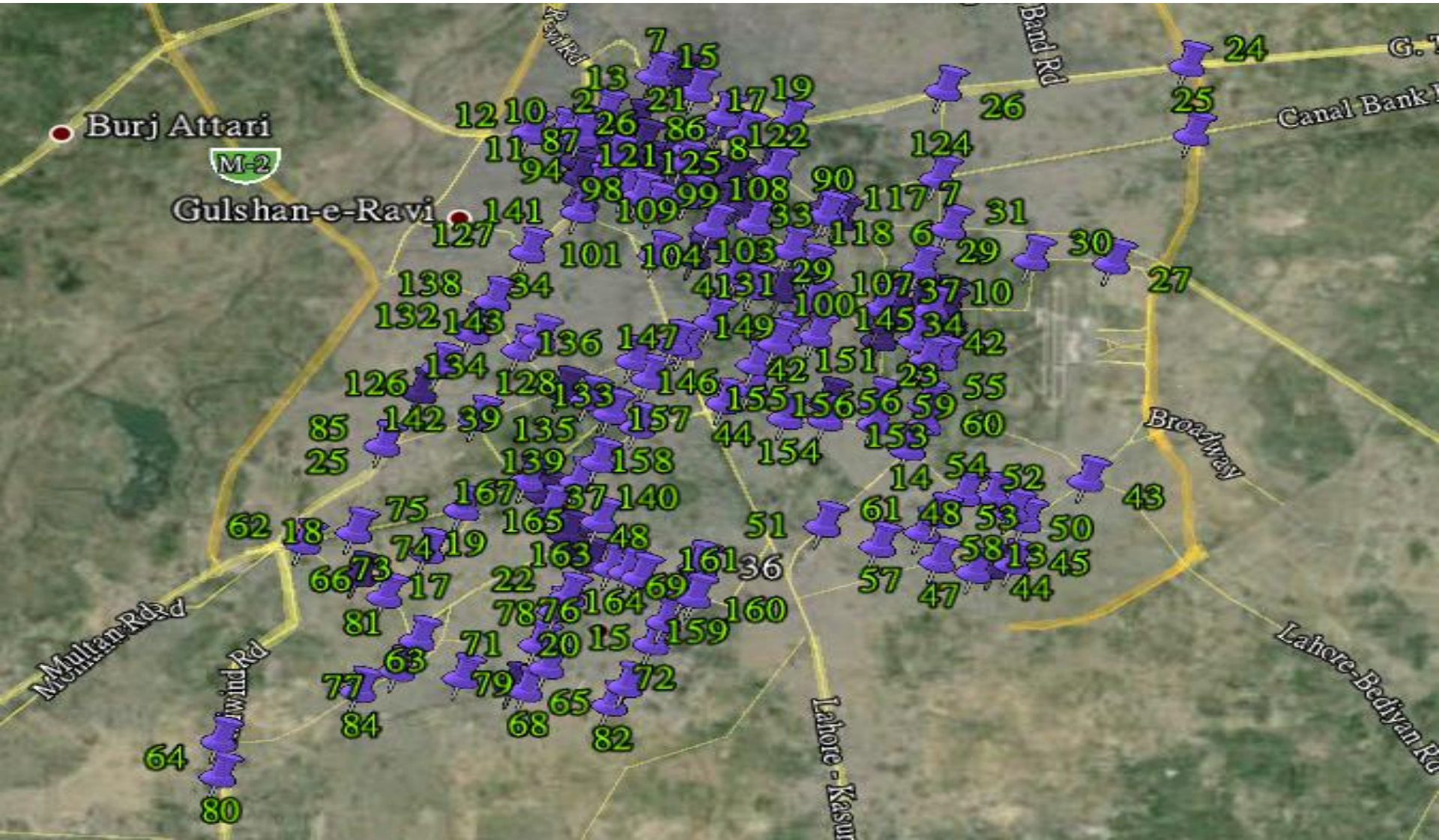
- **Civil Lines-PID1**

- Model Town
- Sadar
- Iqbal Town
- City
- Cantt

Police Traffic Signal Control System (PTSC)

- This system shall be able to
  - Detect traffic volumes at intersections and Roads
  - Detect heavy traffic jams
  - Allow adjustment of traffic signal setting delays for junctions

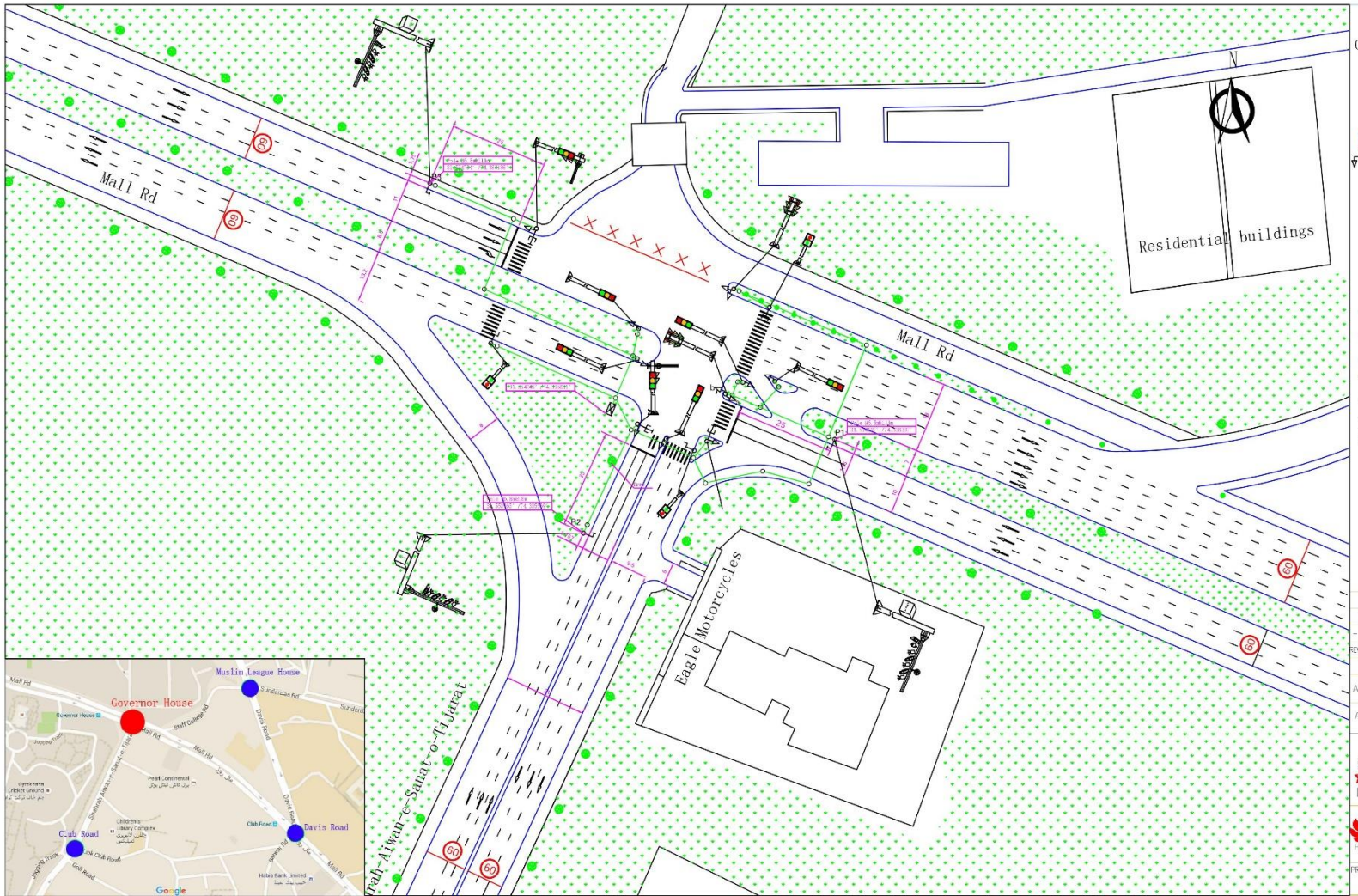
PTSC Zone


Burj Attari
M-2
Gulshan-e-Ravi
Ravi Rd
Band Rd
Canal Bank
Broadway
Multan Rd
Jiwind Rd
Lahore - Kasur
Lahore-Bedian Rd

RED LIGHT MONITORING SYSTEM (RLMS)

- To be installed at all PTSC locations
- The RLMS shall record the following in the event of a Red Light violation:
  - Rear number plate of the vehicle
  - Time of the offence
  - Date of the offence
  - The camera Details

RLMS Plan At Governor House



Entry Exit

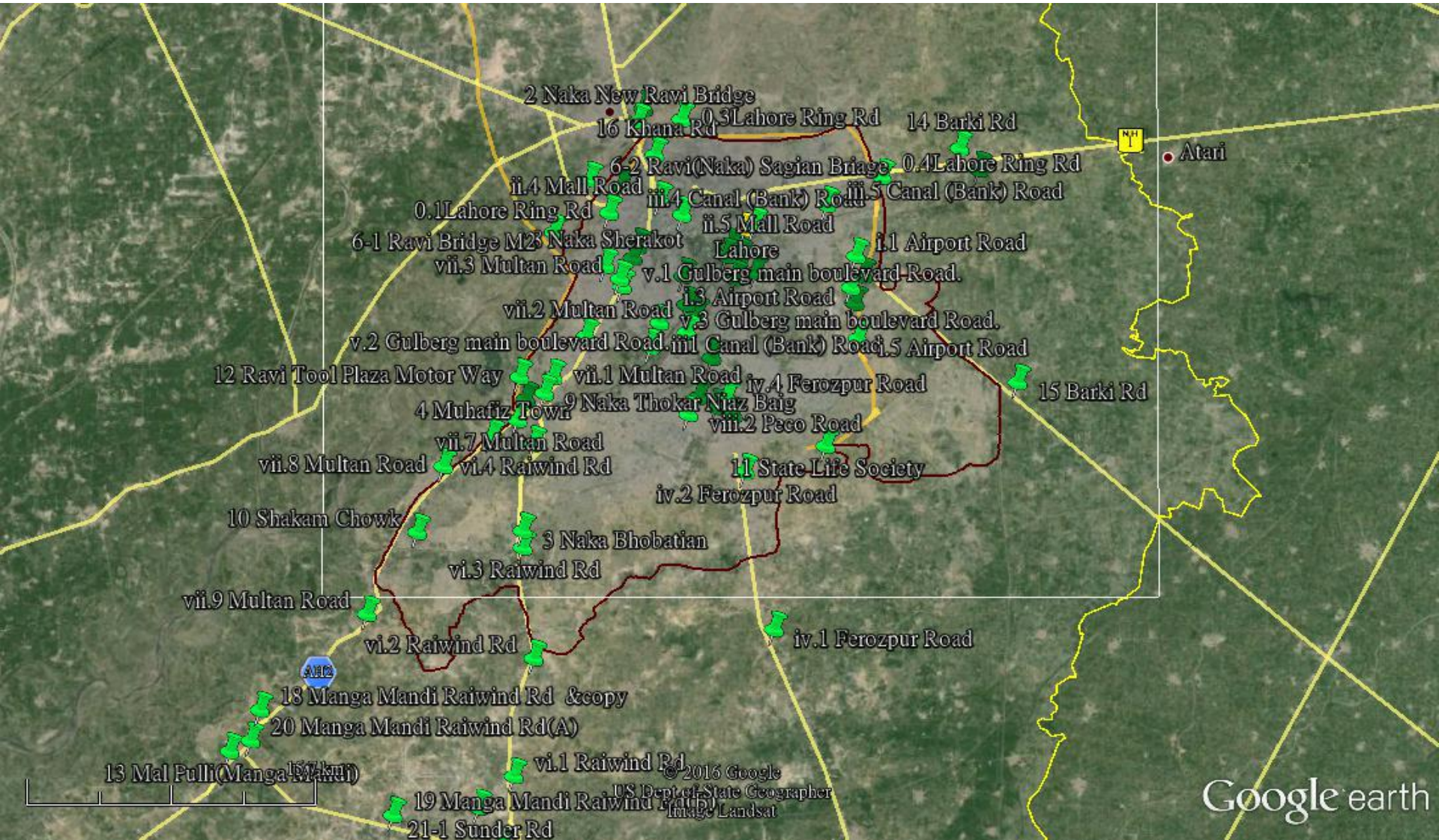
Variable Message Signs (VMS)

- The Variable massage (VMS) signs shall be used to alert Road Users to the following as a minimum:
  - Road Information
  - Road closures
  - Delays
  - Lane control
  - Variable Speed Limit signs
  - Diversions

JOURNEY TIME MONITORING SYSTEM (JTMS)

- System to be installed at entry/exit locations as well as the following primary routes within Lahore:
  - 27 Entry Exit Points
  - Mall Road
  - Canal Road
  - Airport Road
  - Ferozpur Road
  - Gulberg Main Boulevard
  - Raiwind Road
  - Multan Road
  - Peco Road

JTMS Zone


2 Naka New Ravi Bridge
16 Khana Rd
0.3Lahore Ring Rd
14 Barki Rd
Atari
6-2 Ravi(Naka) Sagian Briage
0.4Lahore Ring Rd
ii.4 Mall Road
iii.4 Canal (Bank) Road
iii.5 Canal (Bank) Road
0.1Lahore Ring Rd
ii.5 Mall Road
6-1 Ravi Bridge M2
Naka Sherakot
Lahore
i.1 Airport Road
vii.3 Multan Road
v.1 Gulberg main boulevard Road.
i.3 Airport Road
vii.2 Multan Road
v.3 Gulberg main boulevard Road.
v.2 Gulberg main boulevard Road.
iii.1 Canal (Bank) Road
i.5 Airport Road
12 Ravi Tool Plaza Motor Way
vii.1 Multan Road
iv.4 Ferozpur Road
15 Barki Rd
9 Naka Thokar Niaz Baig
4 Muhafiz Town
viii.2 Peco Road
vii.7 Multan Road
vii.8 Multan Road
vi.4 Raiwind Rd
11 State Life Society
iv.2 Ferozpur Road
10 Shakam Chowk
3 Naka Bhobatian
vi.3 Raiwind Rd
vii.9 Multan Road
vi.2 Raiwind Rd
iv.1 Ferozpur Road
18 Manga Mandi Raiwind Rd &copy
20 Manga Mandi Raiwind Rd(A)
13 Mal Pulli(Manga Mandi)
vi.1 Raiwind Rd
19 Manga Mandi Raiwind Rd
21-1 Sunder Rd
© 2016 Google
US Dept of State Geographer
Image Landsat
Google earth

E-TICKETING SYSTEM (ECS)

- Vehicle number plate is checked against the PTMS Database for outstanding offenses.
- Vehicle number plate is checked against the Crime Database for any outstanding Warrants.
- In case of negative outcome, Challan will be issued:
  - Sent at Address of the Car/Vehicle Owner
  - Can be paid Electronically

ELECTRONIC TRAFFIC VIOLATION MANAGEMENT SYSTEM

E-TICKETING CENTER
PPIC3 Center, Qurban Lines, Lahore
Punjab Safe City Authority

Notice No: 11253698
Number Plate: LEP-12-1844
Amount: Rs. 500/-
Due Date: 12/09/2016

View your violation images at www.psca.gop.pk/lhretc/ PIN: 1234

VIOLATION / VEHICLE DETAILS

Date Of Offence	Time	Violation Type
26/08/2016	10:30 AM	RED LIGHT VIOLATION

Driving Direction	Lane No.	Place Of Violation
WAPDA HOUSE WEST TO EAST	2	WAPDA HOUSE

Name (First, Middle, Last)	CNIC
Ali Ahmed	37101-8899638-9

Address	
H.No 21-A, Gulberg-3, Lahore	
City: Lahore	Province: PUNJAB

Veh Reg No.	Violation History		Chasis No.
LEP-12-1844	Paid: 2	Unpaid: 3	MN89786

Yr Of Veh.	Make	Type	Color	Engine No.
2016	HONDA	CAR	RED	YB236470

PPIC3 LAHORE E-TICKETING CENTER

Affirmed By:	ID No.
MR. ABC	1245

The traffic infraction enforcement officer named above has reviewed the recorded images evidencing the red light signal violation, has identified the registration number of violating vehicle and has found reasonable and probable grounds that a violation has been committed.
PENALTY OF RS. 500/-

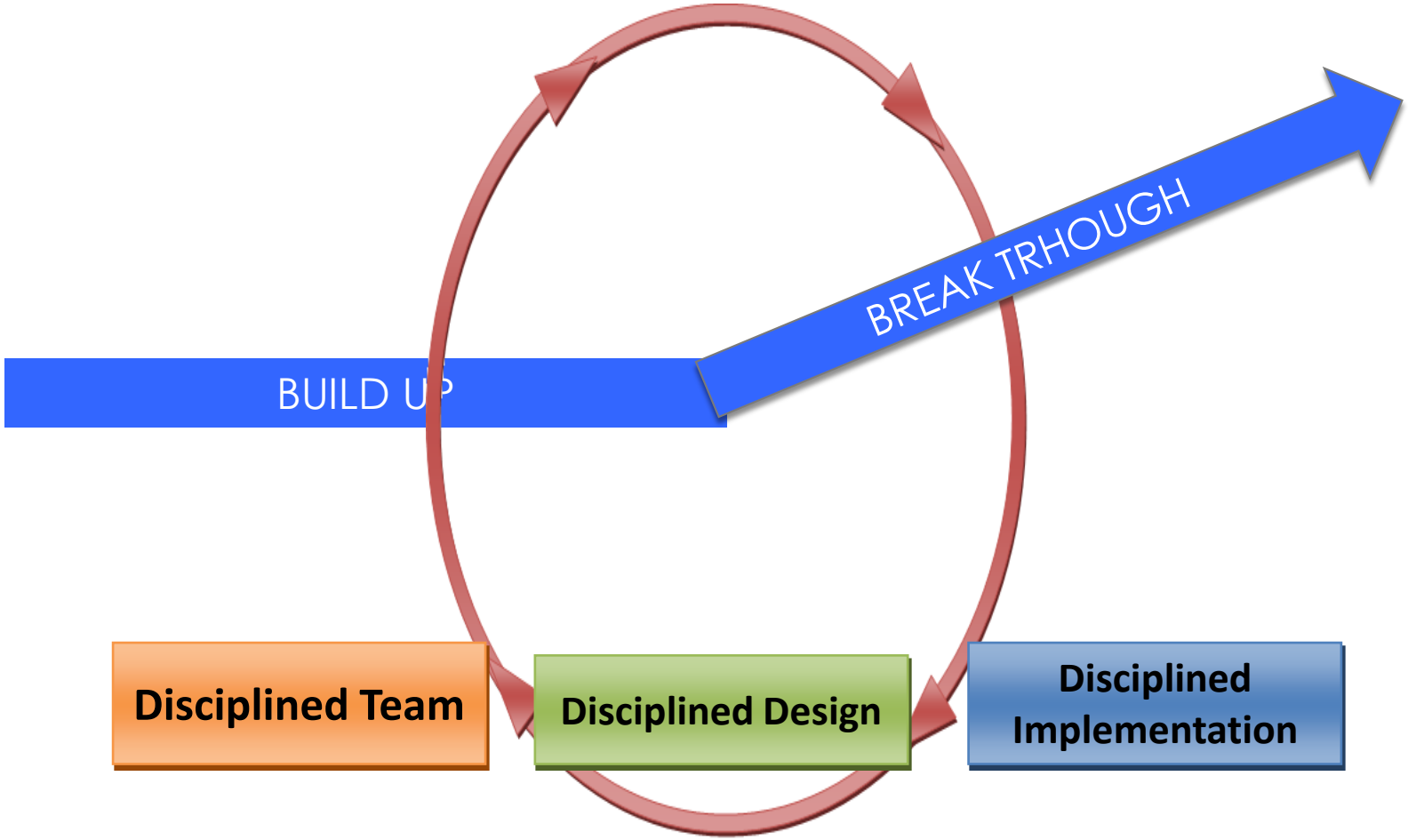
SIGNATURE
MR. ABC
ISSUE DATE
26/08/2016
ISSUE TIME
23:12

INSTRUCTIONS:
You have been fined under section 116-A of motor vehicle ordinance 1965. Please pay your fine within 15 days of issuance of this notice otherwise your vehicle may also be impounded till payment of the outstanding fine.

VERIFICATION PROCESS:
If you have not committed this violation please send us an e-mail at tc-lhr@psca.gop.pk within 7 DAYS from issuance of this notice.

You Can Not Fly into Flying!

Friedrich Nietzsche



Thank you

https://www.facebook.com/punjabsafecities

http://psca.gop.pk/

Twitter @PSCAsafecities

Closing Remarks

Distinguished guests, ladies and gentlemen, on behalf of the organizers and sponsors of this seminar, it is indeed my pleasure to make a few closing remarks and express gratitude to all those who made this event cordial and interactive.

I would also like to take this opportunity to say thanks to the JICA Team for their support in this particular project “Improvement of traffic management capacity in Lahore central area”.

I would like to especially express my appreciation to the presenters. The presentations by Mr Aqeel, Mr. Khurram Saeed and Mr. Waqar Aslam, ……. From TPU and ……. From punjab safe city authority, have been very comprehensive, fruitful and informative to highlight major traffic issues of Lahore and their solutions.

The one main objective of this seminar is to share results of traffic surveys conducted, describe the significance of analysis and draw conclusions for effective decision making. Facts and figures extracted from surveys are very interesting and signifies demand for custom design of traffic management strategies in Lahore central area. Practice of traffic surveys help us understanding extent of problems and subsequently it helps in finding the solution.

TEPA LDA is doing a tremendous job in road infrastructure development. We worked hard in construction and rehabilitation of roads, building many flyovers and underpasses. Now conditions and capacity of roads in Lahore have improved a lot BUT, traffic problems like congestion, road accidents, parking issues, driver behavior and pedestrian crossing

are still elevating day by day. Development alone is not solution for all traffic issues. Traffic management strategies and systems like ITS are vital for sustainable urban transportation. So development coupled with sufficient traffic management measures is the key for better traffic control. TEPA LDA is taking very keen interest in parallel capacity building in traffic management systems.

Also I would like to extend my appreciations and gratitude towards Transport Planning Unit and Punjab safe city authority for very informative presentations. Establishment of central command and control center is a mile stone that will greatly help in adopting traffic management strategies.

Traffic is a multidisciplinary problem that effects every individual of society. One or two departments only cannot solve such problem. Contribution from all relevant departments and participation from different parts of society like schools, commercial areas, residential areas, offices are very critical. Continuous collaboration help us understand each other and spread traffic awareness among masses.

3rd event of this same program is expected in November 2016 and I look forward for your same active participation and contribution in JICA-TEPA technical cooperation.

Again, I would like to extend my appreciations especially to JICA headquarters and JICA consultant team for their keen interests and contributions in improvement of traffic management scenario in Lahore.

It is my sincere duty to thank all of you here today. This program is a success because of your efforts and participation. Thank you very much till we meet again!

Meeting Record

1. Meeting Name

One Day Seminar on Improvement of Traffic Management Capacity in Lahore

2. Date

Wednesday, 28th September, 2016 at 09:00 to 13:30

3. Venue

Royal Palm Golf & Country Club Lahore-Pakistan

4. Question and Answers Session

Question 1:

Name: Mr. Arslan Zulfiqar

From: NESPAK

Mr. Akbar Nasir from PSCA has just mentioned different means of communicating information to road users like Rasta FM, GIS. How about launching a dedicated mobile application for this purpose.it will be most convenient way to communicate to road users?

Answer by Mr. Akbar Nasir

We are going to have that app but now we are using 15 helpline of police for this purpose because in this case there will be no issue of privacy. When any one calls at 15, he/she needs help and to provide you help we have system where we locate nearest police respondent for you to help. Anyhow it's a good idea and in future we will work on it partner with TEPA.

Question 2:

Name: Dr. Awais Shafique
From: University of Engineering and Technology (UET)

I want to ask question regarding parking survey as discussed by Mr. Aqeel and Khurram.is the parking you people mentioned is legal or illegal or both and what was its ratio?

Answer by Mr. Aqeel Younis

Legal and illegal parking is determined by Lepark who convert some road sections into parking stands. If some is parking inside the stands its legal and if park outside the stand its illegal.so all the sites which we selected we verified whether these are legalized by Lepark or not? Actually

the purpose of our survey is not to find out legal or illegal our purpose was just to collect for example parking pattern and parking demands in that certain area.

Question 3:

Name: Dr. Awais Shafique
From: University of Engineering and Technology (UET)

What was the reaction of the people during TDM survey and how many questions you ask as common people is not aware of the technical knowledge.

Answer by Mr. Aqeel Younis

We ask 22 questions and it was difficult for our surveyor to motivate people to answer each question and to collect more than 30 to 36 forms in a day and secondly our surveyors explain each and every question so that people can understand before answering. We were not quick in that survey it took more than 2 or 3 weeks to complete it.

Question 4:

Name: Dr. Awais Shafique
From: University of Engineering and Technology (UET)

As you did the parking survey what was the time travel?

Answer by Mr. Aqeel Younis

It depends on the level of your study. If strategic we increase the time and if you go on micro level we decrease the time even for 5 minutes. Here our level of study means 30 minutes. We did not concern this so much details because our concern was accumulation (total number of parked vehicle) for example when you go for vehicle number plat system then you go for 15 minutes and counts number plat of each type of vehicle.it depends of level and purpose of study. Our concern was only to find out level of accumulation.

Question 5:

Name: Zaid Farooq
From: represent company who work for traffic management safety

Concern for TEPA:
As we know we do many of construction not only in Lahore but also in other parts of the country but there is not any valid negligible rule for temporary traffic management. We don't have any advance information science for example not proper training. Due to this negligence we have many loss of lives especially for pedestrians.

Question 6:

Name: Mr. Haroon
From: University of Engineering and Technology (UET)

As Mr. Aqeel mentioned that they conducted most of the surveys in April and everyone knows during April and May mostly construction activities were going on which divert the large volume of traffic to other lanes and cause congestion. Don't you think the data collected during this period will be reliable for future improvement or not?

Answer by Mr. Aqeel Younis

It's quiet a valid answer. Yes all the intersection near construction areas were affected, their travel pattern affected and traffic divert creating congestion. But as Waqar mention about the metro construction going on so as long as this construction continue its difficult to collect valid data so when construction finish we will conduct surveys again if required. But now the data which we have collected have all that concerns.

Answer by Mr. Waqar

Actually we have conducted our survey in different time period to get reliable data and we cannot stop our working and survey just due to the construction because our this project has some time period to complete.so till the completion of this project we will conduct different survey with different time period.

Question 7:

Name: Mr. Bilal Zia
From: University of Engineering and Technology (UET)

Concern:
I would like to thank TEPA and JICA for involving academia. i want to share that it's important that when we analyze traffic pattern or performance of an intersection or corridor it is important to convert these numbers into passengers cars unit(PCU).for example if you are counting motorcycle as vehicle then you have to mentioned it.

Question 8:

Name: Mr. Bilal Zia
From: University of Engineering and Technology (UET)

As many of your slides show problems with pedestrian. Did you conduct any survey for pedestrian count or its just observation?

Answer by Mr. Waqar

Actually these are just our observation and feedback from people regarding pedestrian issues. But when we start our pilot project we definitely conduct this survey as we do in parking, travel speed surveys in pilot project area.

Question 9:

Name: Mr. jamshid Mehmood
From: Nespak

Suggestion:
If you take OD survey pattern.as you know that orange line construction is going on and traffic pattern is disturb and you are relying on MCC survey data.in this situation it is better if you conduct OD origin destination survey which inform when where and which location people are going.so data collected will be more reliable.

5. Attendant List

TEPA
Traffic Engineering & Transport Planning Agency Government of Punjab

Project for Improvement of Traffic Management Capacity in Lahore

JICA
METS Research & Planning, INC.
CTI Engineering International Co. Ltd.
Tokyo, Japan

One Day Seminar on

Improvement of Traffic Management Capacity in Lahore

Venue: Fairway's Hall, Royal Palm Golf & Country Club, Lahore

Date: 28th September, 2016 **Time: 09:00 to 13:30**

Attendance List

No.	Name	Organization	Designation	Signature
1.	Tauseef Ahmad	TEPA L.D.A	Dir (P&D)	
2.	Aqeel	METRO	Dir.	
3.	Zahid Abbas	TEPA	R.D.E	
4.	Tomoko Fujikawa	JICA		
5.	M. Waqar Aslam	TEPA	T.E	
6.	Aqeel Sulman	RESCUE 1122	E.O	
7.	M. AMMAR	C&W Dept.	SECTION OFFICER	
8.	ABDUL BASIT	NESPAK	C.E	
9.	Mishkat Arju	PSCA	T.E	
10.	HARIS BILAL	TEPA	AD	
11.	M. USMAN MALIK	LTC	Manager Planning	
12.	Ammad Raza	ECSP	GM-Highways	
13.	Khalid	TEPA	AD (TS)	
14.	Waseem	DTEM UET	Student	
15.	Abdul Basit	DTEM UET	Student	

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Attendance List

No.	Name	Organization	Designation	Signature
16.	M Haroon Rashid	UET DTEM	Student	
17.	Hammad Hasan Butt	TEPA	R.A	
18.	S.M. Hasan	DD TEPA, LDA	DD	
19.	Akbar Nasir	COO PSCA	COO	
20.	Muzammil Mir Zo	UET	Student	
21.	Rafay Saleem	UET.	Student	Rafay.
22.	Abdul Mueed	UET	Student	
23.	Aneeq ur Rehman	UET	Student	
24.	ASNA AHMED	Lahore Parking Co.	Manager Operations	
25.	KAMRAN KHAN	Lahore Parking Company	Manager Planning	
26.				
27.				

TEPA

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Government of Punjab

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Attendance List

No.	Name	Organization	Designation	[redacted]	Signature
28.	Sh. Tahir	DO Tech CDGL	CDGL	[redacted]	
29.	Mohsin Asghar Khan	TEPA, LDA	Director (Enforcement)	[redacted]	
30.	UMAR ALI	UET Lah	Student	[redacted]	
31.	Talha saeed	UET LHR	Student	[redacted]	
32.	Kaleel Raza	UET LHR	Student	[redacted]	
33.	Usman Ghani	UET LHR	Student	[redacted]	
34.	Umair Akbar	UET LHR	Student	[redacted]	
35.	Sohail Asghar	UET LHR	Student	[redacted]	
36.	Danial Nazir	ALDO	Business	[redacted]	
37.	Ahmed Nazir	ALDO	Engineer	[redacted]	
38.	Faraz Nazir	ALDO	Business	[redacted]	
39.	M. Asif	CAN	DSP	[redacted]	

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Attendance List

No.	Name	Organization	Designation	[redacted]	Signature
40.	Asad	PSCA	DD (E)		
41.	Mrad	PSCA	DD(E)		
42.	Rachell	ARUP	Senior Associate Consultant		
43.	Farhan	TEPA	AD		
44.					
45.					
46.					
47.					
48.					
49.					
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51.					

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Date: 28th September, 2016 **Time: 09:00 to 13:30**

Attendance List

No.	Name	Organization	Designation	Signature
1.	Dr. Anas Sidiqui	UET Lahore	Asst Professor	
2.	SHAHID WAHEED	Rescue 1122	Emergency officer (Cops)	
3.	Umar Iqbal	TEPA LDA	Assistant Director	
4.	Sohail Rashid	TEPA, LDA	Director (HQ)	
5.	Usman Ahmad Khalid	TEPA	R.A (T)	
6.	Zaighan Abbas	TEPA	R.A (T)	
7.	Naila Ahmed	JICA	Sr. Program Officer	
8.	Khurram Saeed	TEPA	R.A (C)	
9.	Bilal Zia	DTEM, UET, LAHORE	ASSIST. PROF	
10.	M. AZAM	RSO	RSO	
11.	Arslan Zulfiqar	NESPAK	SE	
12.	Jamshaid Mahmood	NESPAK	Senior E-Jr.	
13.	Nauman Naik	TEPA	AD	
14.	Zeeshan Umar	LDA	AD	
15.				

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Date: 28th September, 2016 **Time: 09:00 to 13:30**

Attendance List

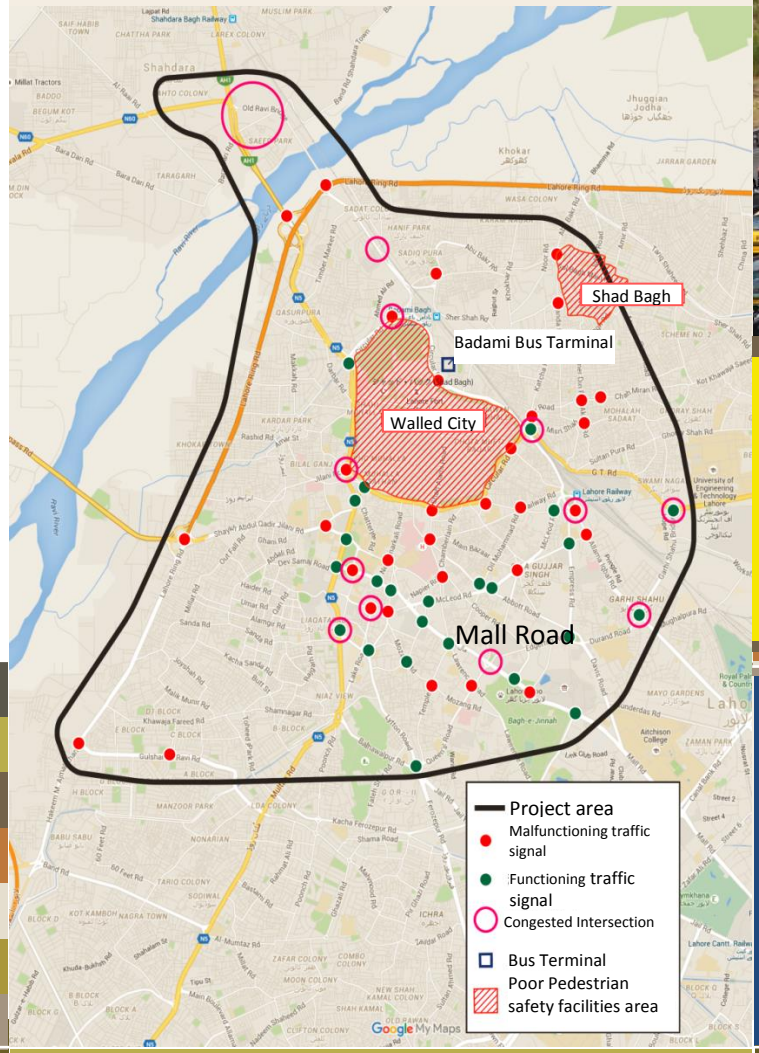
No.	Name	Organization	Designation	Signature
16.	Daniyal	UET	Student	
17.	M. Shoaib	UET	Student	
18.	Mudassir Ahmad	UET	Student	
19.	Fayyaz Ahmad	UET	Student	
20.	M. Idrees	UET	Student	
21.	M. Hassan	UET	Student	
22.	Hassam	UET	Student	
23.	Afeera Asif	UET	Student	
24.	Kamran Hasan	Transport Department	TDM	
25.	M. Salman	UET	Student	
26.	Mashood Afzal	UET LHR	Student	
27.				

Project for Improvement of Traffic Management Capacity in Lahore Central Area (LITMC)

- Lahore, the capital of Punjab Province, is the 2nd largest city in Pakistan with a population of about 10 million. The city's rapid population growth coupled with extremely high motorization has resulted in chronic traffic congestion.
- BRT line (Metro Bus System (MBS)) and the MBS contributed to the decrease of traffic congestions along major transport corridor. However, traffic congestions in the Lahore Central Area still have increased because there are no effective countermeasures for the different aspects of traffic management.
- Considering these circumstances, the Government of Pakistan requested the Government of Japan to support "The Project on Improvement of Traffic Management Capacity in Lahore Central Area (LITMC)" for improvement of the traffic management capacity to decrease traffic congestions in Lahore.
- The main ***objective of this Project*** is to extend technical cooperation to the Lahore City in its efforts in alleviating chronic urban traffic congestion problems.

"We, TEPA and JICA, are engaged in this challenging activity of improving traffic management in Lahore, Pakistan"

Project Area



Contact Persons

Muhammad Waqar Aslam
TEPA, LDA (0334-442 1680)

Ms. Zaib-un-Nisa
JICA Project Team (042-3717 3429)

One Day Seminar

Improvement of Traffic Management Capacity in Lahore

28th September, 2016

Fairway's Hall, Royal Palm Golf & Country Club, Lahore
Time: 09:00 to 13:30

Jointly Organized by

LDA TEPA JICA

Program Agenda

09:00 – 09:30 Registration

09:30 – 10:00 Opening Keynotes

Mr. Saif ur Rehman, Chief Engineer, TEPA
(Welcome note)
Mr. Ryuichi Ueno, Deputy Chief Consultant, JICA Project Team
(Brief introduction of Project)

10:00 – 10:50 Presentations

Mr. Aqeel Younis Mughal, Transport Planner, Metro Associates
(Conduct of Traffic surveys, Approach & Methodology and Quality Assurance)
Mr. Khurram Saeed, Research Associate, TEPA
(Survey Data Analysis and Problem Identified)
Muhammad Waqar Aslam, Traffic Engineer/Team Leader, TEPA
(Selection of Pilot project area, Traffic Safety Campaign)

10:50 – 11:00 Q&A Session

11:00 – 12:00 Presentations

Presentation from Transport Planning Unit (TPU)
Vehicle Inspection and Certification System (A Government of the Punjab Project)
Presentation from Punjab Safe Cities Authorities (PSCA)
(Traffic Management System)

12:00 – 12:15 Q&A Session

12:15 – 12:30 Closing Remarks

Mr. Tausif Ahmed, Director P&D, TEPA

12:30 – 13:30 Lunch

Progress in the Project for Improvement of Traffic Management Capacity in Lahore Central Area (LITMC)

Since the commencement of the project, it's progressing at its desired pace and following key targets have been achieved:

1st Joint Coordinating Committee (JCC) Meeting >>>

Joint Coordinating Committee was established to facilitate inter-organizational coordination for this project and 1st Joint Coordinating Committee Meeting was held on 24th March 2016 in which the main purpose/benefits of Project for Improvement of Traffic Management Capacity in Lahore Central Area were highlighted and working plan

Traffic Surveys conducted in Lahore Central Area >>>

In order to access the current transport status in the project area, Project team conducted following surveys in different locations of Lahore Central Area.

- Manual Classified Counts Survey
- Parking Situation Survey
- Travel Speed Survey
- Transport Demand Management (TDM) Survey
- Traffic Signal Assessment Survey

1st Working Group Meeting (WG) >>>

A Working Group (WG) was established to implement the LITMC Project plan and activities.

1st Working Group Meeting was held on 2nd August, 2016 in which project team share the analysis of all the conducted surveys and suggested the selection of Pilot Project area.

2nd Joint Coordinating Committee (JCC) Meeting >>>

2nd Joint Coordinating Committee Meeting was held on 18th August, 2016 in which the all the progress of the LITMC Project and Project Design Matrix was shared with stakeholders and the candidate Pilot Project area for Improvement of Traffic Management Capacity was selected.

SAFETY
Is as simple as ABC

ALWAYS BE CAREFUL

Project Outcomes >>>

- Capacity Development for traffic management of TEPA and related organizations through training.
- Institutional and personal capacity for traffic management of TEPA is to be enhanced through implementation of Pilot Project(s).
- Pilot Project(s) are summarized into "handbook" to be shared among TEPA and related organizations as a reference for other areas' improvement.
- Traffic management improvement plan for Lahore Central area.

Traffic Engineering & Transport Planning Agency
Government of Punjab

Project for Improvement of Traffic Management Capacity in Lahore

METS Research & Planning, INC.
CTI Engineering International Co. Ltd.
Tokyo, Japan

AGENDA

3rd One Day Seminar on
Improvement of Traffic Management Capacity in Lahore

Venue: Summit Hall, Royal Palm Golf & Country Club, Lahore

Date: 5th September, 2018 **Time: 10:00am to 13:30 pm**

10:00 – 10:30	**Registration**

10:30 – 11:00	**Opening Keynotes**

Mr. Mazhar Hussain Khan, Chief Engineer, TEPA (Welcome note)
Mr. Ryuichi UENO, Deputy Chief Consultant, JICA Project Team (Brief introduction of Pilot Project)

11:00 – 12:00	**Presentation of the Pilot Project**

Mr. Nauman Haider, Assistant Director, (S&E) TEPA

- Corridor Management along Queens Road
- Evaluation of Pilot Project

Mr. Muhammad Waqar Aslam, Team Leader, TEPA

- Mobility Management Campaign
- Traffic Safety Campaign
- Lessons Learned from the Pilot Project

12:00 – 12:30	**Q&A Session**

12:30 – 12:45	**Closing Remarks**

Mr. Sohail Rashid, Director (HQ), TEPA

12:45 – 13:30	**Lunch**

Emcee: Khurram Saeed, Research Associate, TEPA

OBEY ALL ROAD SIGNS & TRAFFIC LAWS

Road sense is the offspring of courtesy and the parent of safety

Improvement of Traffic Management Capacity in Lahore

5th September, 2018

Royal Palm Golf & Country Club, Lahore

Time: 10:00 to 13:30

Jointly Organized by

PROJECT ON IMPROVEMENT OF TRAFFIC MANAGEMENT CAPACITY IN LAHORE CENTRAL AREA

Mr. Mazhar Hussain Khan
Chief Engineer, TEPA

Welcome Note

5 September 2018

Traffic Engineering & Transport Planning Agency (TEPA)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PROJECT ON IMPROVEMENT OF TRAFFIC MANAGEMENT CAPACITY IN LAHORE CENTRAL AREA

Ryuichi Ueno
Duputy Chief Consultant, JICA Project Team

Brief Introduction of Project

5 September 2018

Traffic Engineering & Transport Planning Agency (TEPA)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Introduction of Seminar

Project Overview

"the Project on Improvement of Traffic Management Capacity in Lahore Central Area (LITMC)" for the improvement of the traffic management capacity to decrease the traffic congestions in Lahore.

Project Output

1. Capacity Development for traffic management of TEPA and related organizations is conducted through training.
2. Institutional and personal capacity for traffic management of TEPA is enhanced mainly through implementation of Pilot Project(s).
3. Pilot Project(s) are summarized into "handbook" to be shared among TEPA and related organizations as a reference for other areas' improvement.
4. Traffic management improvement plan in Lahore is developed.

Introduction of Seminar

Project Schedule

Year	2016				2017				2018			
Month	Feb – Mar	Apr - Jun	Jul - Sep	Oct - Dec	Jan - Mar	Apr - Jun	Jul - Sep	Oct - Dec	Jan - Mar	Apr - Jun	Jul - Sep	Oct - Dec
WORK PLAN	**Current Situation Analysis** ● (1-1) Needs Assessment of the CP members ● (1-2) Development of Training plan ● (2-1) Traffic condition survey ● (2-2) Identify of traffic management issues ● (2-7) Organizational frameworks of TEPA ● (3-1) Review the Existing handbook and manual			**Institutional / Personal Development** ● (1-3,4) Conduct training courses ● (1-6) Conduct work shops/Seminar ● (2-8) Preparation of institutional improvement Plan **Planning for Pilot Project** ● (2-3) Planning of the Pilot project (Selection of pilot project area and implementation items, Design, Integration, Coordination with Relevant organization)			**Implementation of Pilot project** ● (2-4) Implementation (Construction, M/M, Traffic safety Campaign) ● (2-5) Traffic Survey			**Institutional Development** ● (2-9) Monitoring of the institutional improvement Plan **Analysis of Pilot Project** ● (2-6) Traffic simulation **Development of Handbook and Manuals** ● (3-2,3) Pilot project handbook and Intersection Design manual **Preparation of Traffic Management Plan** ● (2-10, 4-1) Traffic Management Plan	
WG				●	●		●		●		●	●
JCC	●			●	●				●		●	●
Seminar	●			●							●	●

Introduction of Seminar

Schedule of Seminar

1st Seminar: Project Kickoff Meeting of Project(25th Feb. 2016)

2nd Seminar: Present Traffic Issues in Lahore Central Area (28th Sep. 2016)

3rd Seminar: Evaluation of Pilot Project (5th of Sep. 2018)

4th Seminar: Traffic Management Plan in Lahore Central Area (Nov. 2018)

Outline of Pilot Project

Purposes of the Pilot Project

The pilot project was implemented for the following purposes:

- **01** To enhance engineering knowledge by practical exercises.
- **02** To make "handbook" and "manual“ for traffic management based on the experience of Pilot Project.
- **03** To develop the traffic management plan that suits characteristics of Lahore Central Area.
- **04** To transfer engineering knowledge using "handbook" and "manual" to staff of related organizations.

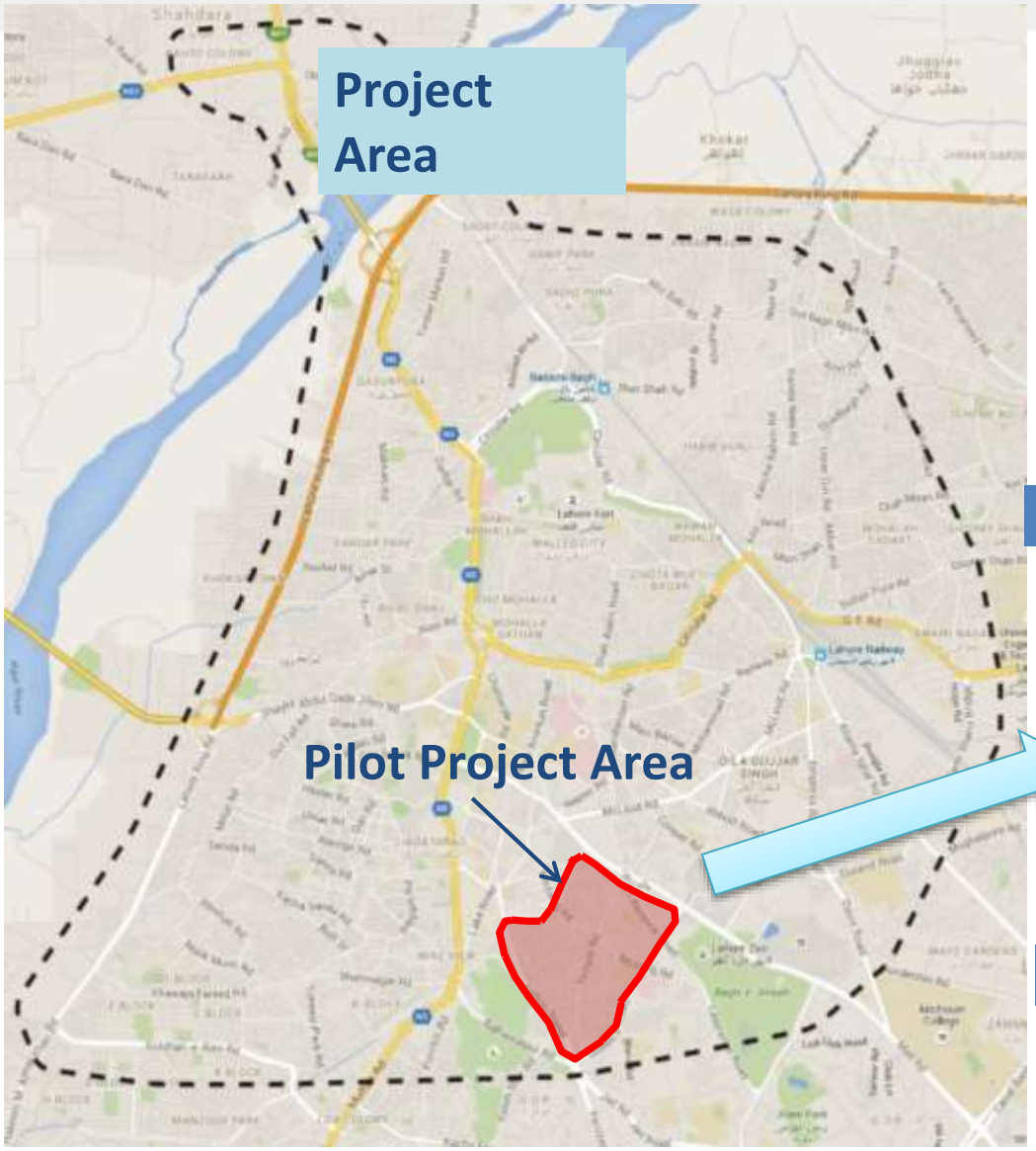
Outline of Pilot Project

Selection of the Pilot Project

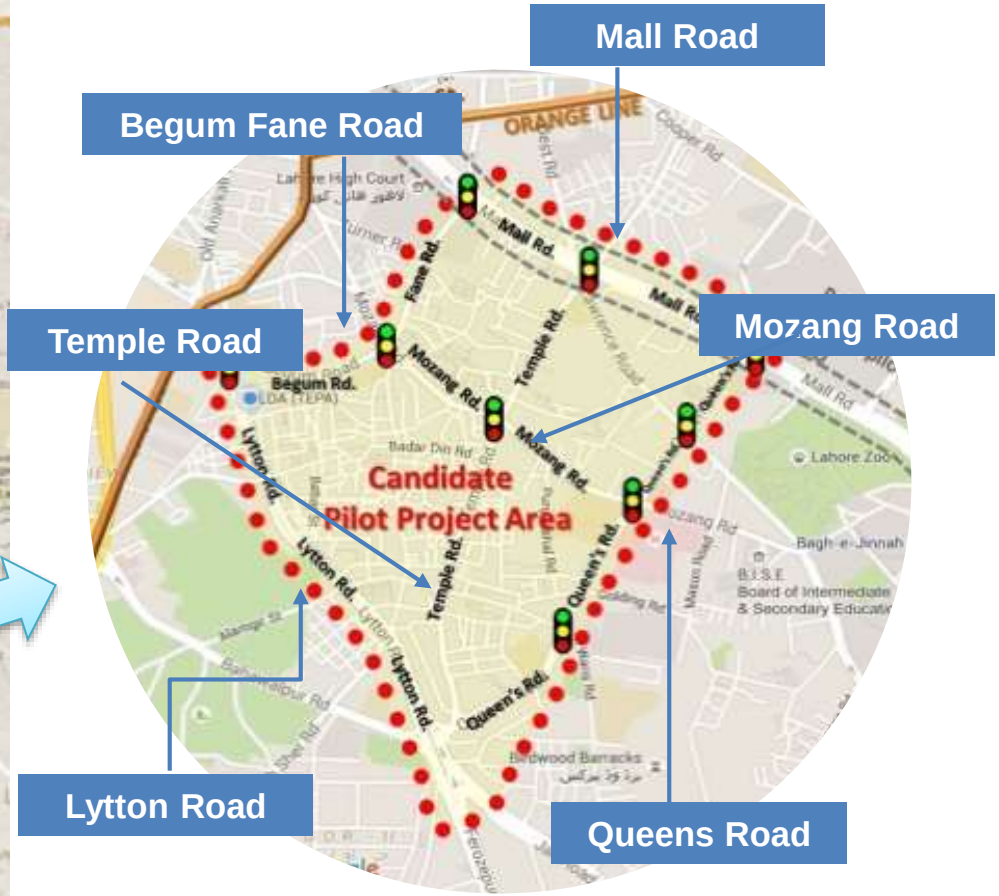
The pilot project area was selected under the following policy.

- An area where typical traffic problems/ issues of Lahore can be observed.
- A comprehensive urban transport measures for vehicles and pedestrians can be applied.

Outline of Pilot Project



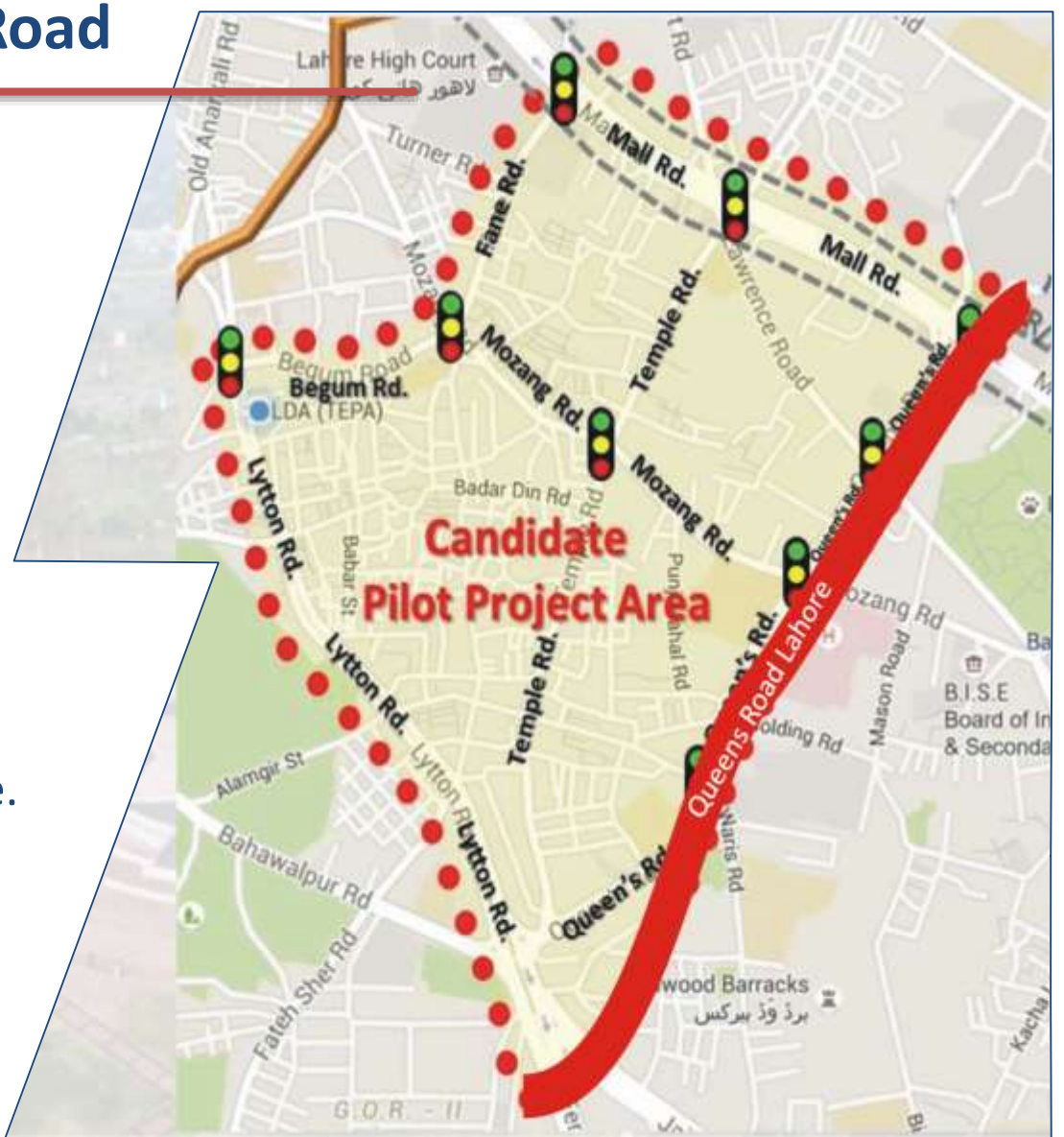
Pilot Project Area



Outline of Pilot Project

Pilot Project Corridor – Queens Road

- Queens Road is located between two of Lahore's main radial roads – The Mall Road, Ferozepur/Lytton Road.
- It has attracted considerable investor interest in the past decade and has consequently developed as a hub of business as a hub of automobile and electronics industries.
- Hospital, educational institutes and Army Aviation center are located there.



Introduction of Seminar

Objective of the 3st Seminar

To share the result on the pilot project among the stakeholders to make aware of the impact on traffic management and to get your precious comments for the improvement of traffic management implementation in Lahore Central Area

- **Corridor Management along Queens Road**
- **Evaluation of Pilot Project**
- **Mobility Management Campaign**
- **Traffic Safety Campaign**
- **Lessons Learned from the Pilot Project**

Introduction of Seminar

- Please take note and reserve your questions for each presentation at the end of presentation session.

PROJECT ON IMPROVEMENT OF TRAFFIC MANAGEMENT CAPACITY IN LAHORE CENTRAL AREA

Mr. Nauman Haider
Assistant Director (S&E), TEPA

Corridor Management along Queens Road and Evaluation of Pilot Project

5 September 2018

Traffic Engineering & Transport Planning Agency (TEPA)

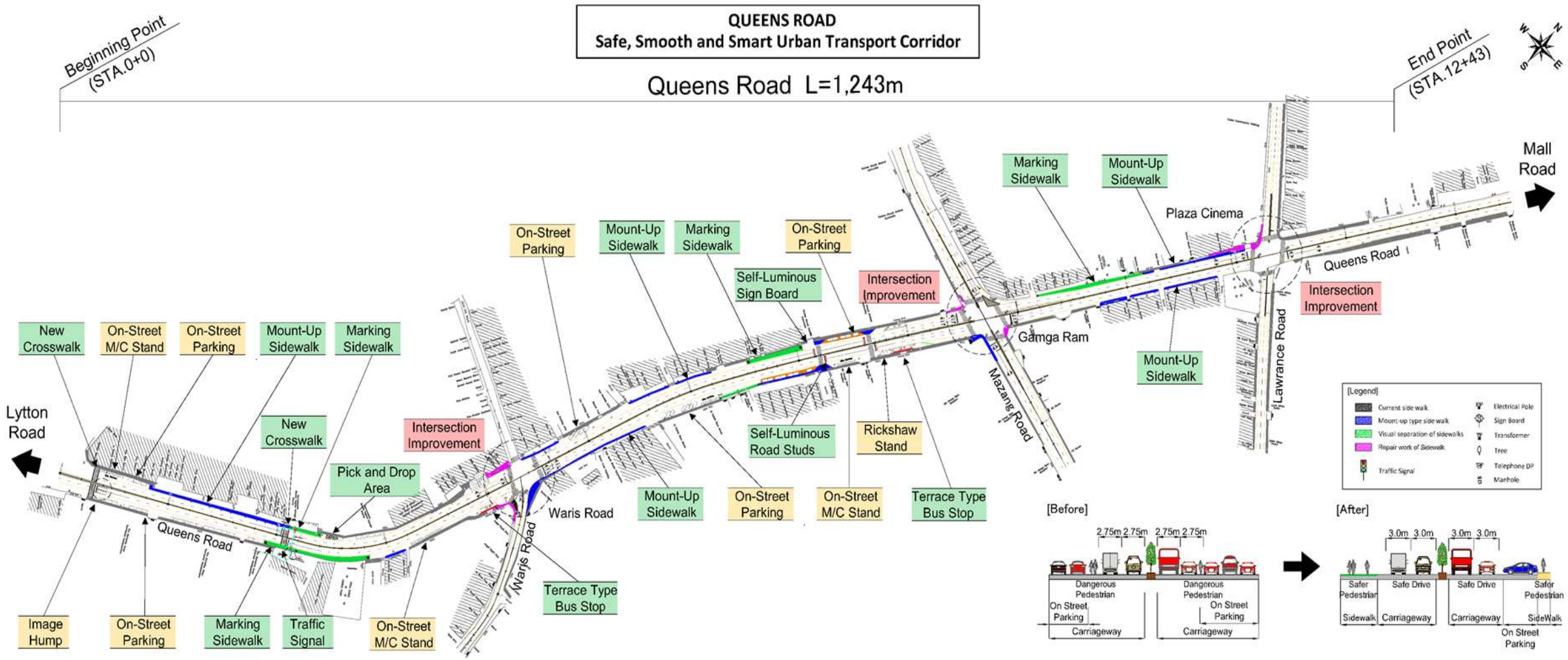
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Presentation Outline

1. Corridor Management
2. Evaluation of Pilot Project
   (Pre and Post Traffic Survey Result)

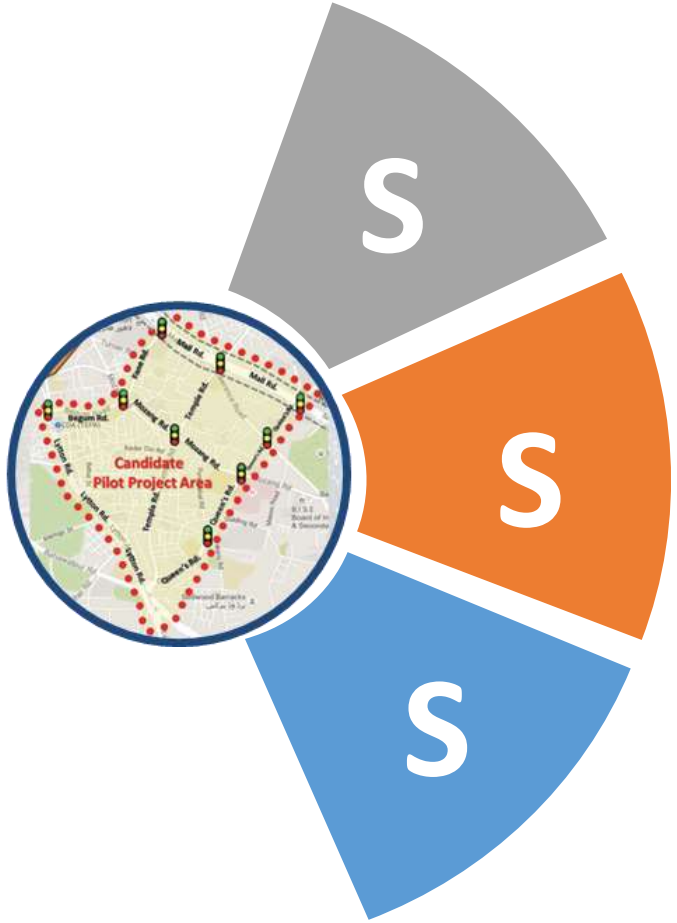
1. Corridor Management along Queens Road (1/17)

Details of Implementation Plan



1. Corridor Management along Queens Road (2/17)

"Safe, Smooth and Smart Urban Transport Corridor – Queens Road"



SAFE

Safe means ensuring the safety of all road users.

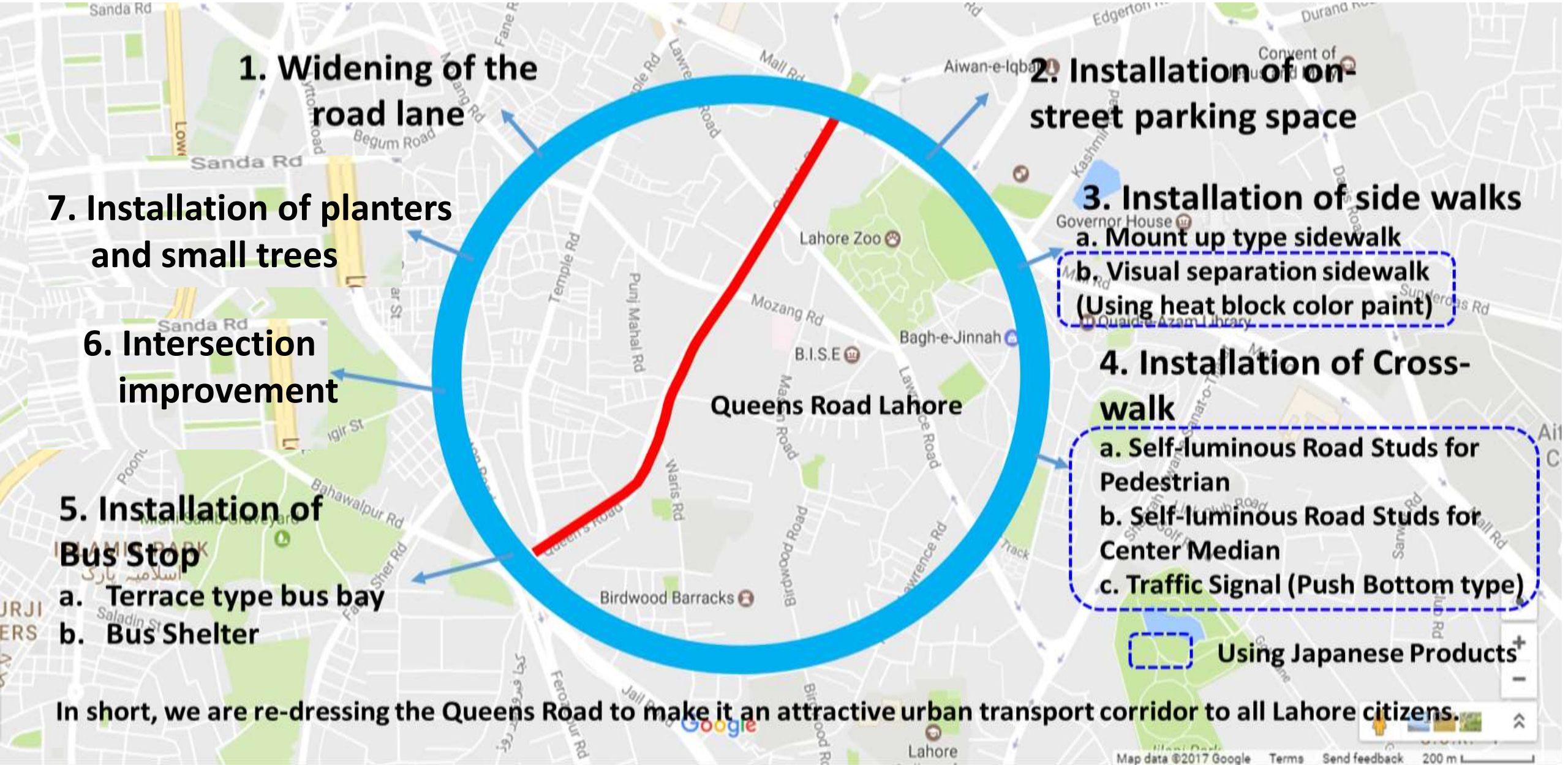
SMOOTH

Smooth means smooth mobility not only for cars (but keeping speed limit) but also for pedestrians walking on continuous sidewalk space.

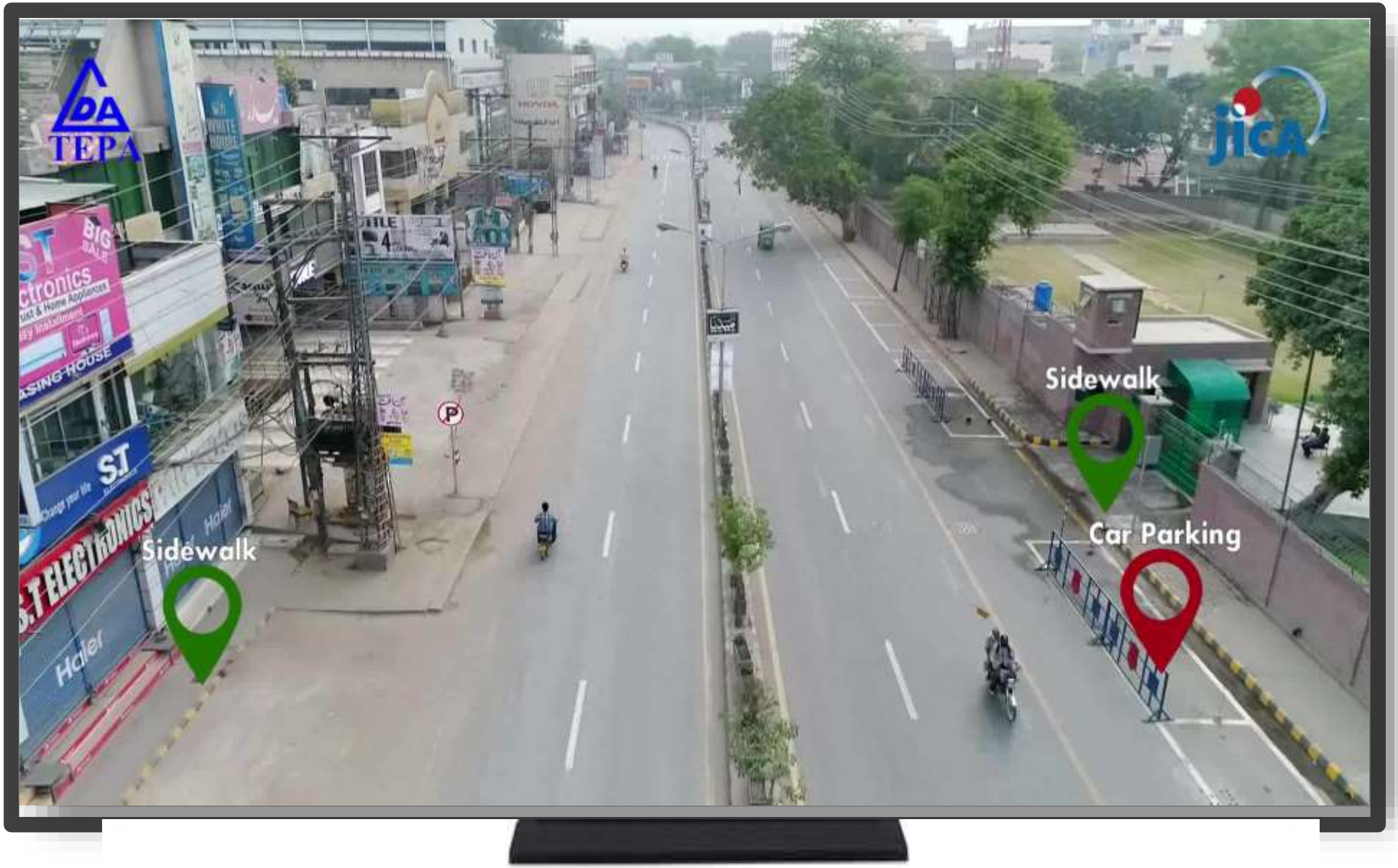
SMART

Smart means effective use of road space by car drivers, roadside shop owners/business persons and pedestrians.

1. Corridor Management along Queens Road (3/17)



1. Corridor Management along Queens Road (4/17)

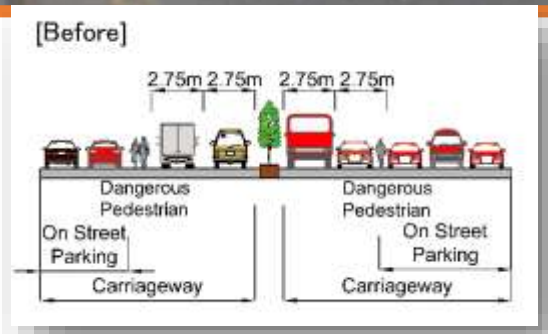


Queens Road view from Drone

1. Corridor Management along Queens Road (5/17)

- To ensure safe and smooth traffic for large vehicles such as bus and large truck, the lane width was changed from 2.75m to 3.0m

Before



After

1. Corridor Management along Queens Road (6/17)

- To prevent lane blockage due to illegal parking , On-Street Parking Space was installed on shoulder for cars and motorcycles.

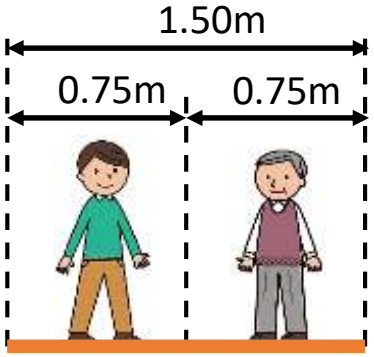
Before

After

1. Corridor Management along Queens Road (7/17)

BEFORE

- The width of sidewalk was ensured that pedestrians can pass each other (more than 1.5m) .



- In the section where the vehicle enters the private property on the roadside continuously, the height gap between the Carriageway and the sidewalk was set as 5cm.

AFTER

1. Corridor Management along Queens Road (8/17)

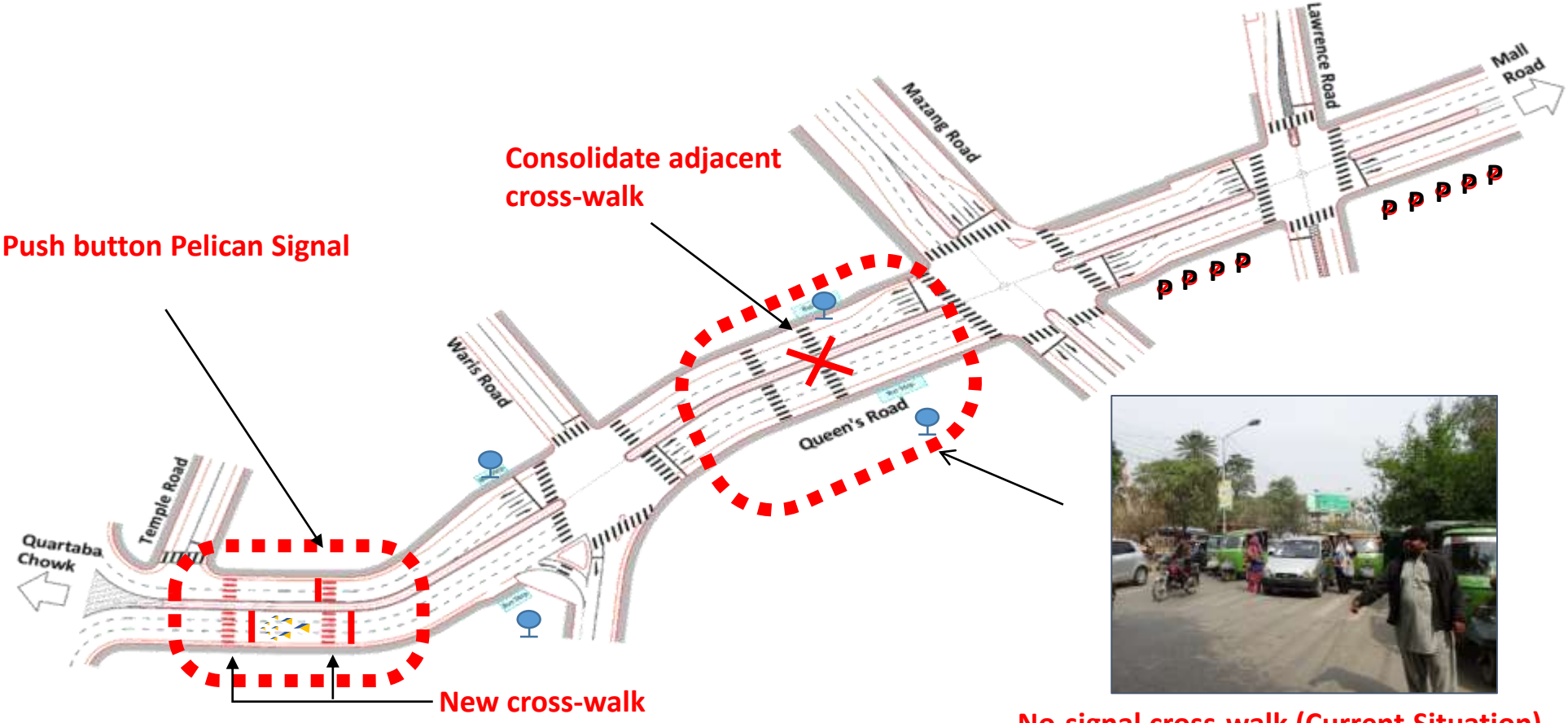
- The visual separation sidewalk was installed in the section where the Mount-up Type sidewalk cannot be installed due to safety reasons such as the UK Visa center and gas stations.
- To improve pedestrian safety at night, Self-luminous Road Studs was installed at the boundary of the carriageway and the sidewalk.

AFTER (Day Time)

AFTER (night Time)

1. Corridor Management along Queens Road (9/17)

To make an environment where pedestrians can cross the roads safely, Crosswalk facilities were installed at regular intervals (Every 200 m).



No-signal cross-walk (Current Situation)

1. Corridor Management along Queens Road (10/17)

- To make conditions where pedestrians can cross the roads safely, Push Button Pelican Signal was installed in front of Jinnah Degree collage for Women.
- To allow pedestrians to cross the road safely and comfortably, Center median (part of the pedestrian crossing) was removed.
- To reduce the vehicle speed at the signal section, road studs were set in front of the cross-walk marking.

1. Corridor Management along Queens Road (11/17)

Push Button Pelican Signal

1. Corridor Management along Queens Road (12/17)

BEFORE


Medical University

Shezan Bakers

To make an environment where pedestrian can cross the roads safely, proper cross walks with Self-luminous Sign board and Road studs were installed in front of Medical University and Shezan Bakers

To allow pedestrian to cross the road safely and comfortably , Center median (part of the pedestrian crossing) was removed.


Medical University

Shezan Bakers

AFTER

1. Corridor Management along Queens Road (13/17)

Non Signalized Crosswalk

1. Corridor Management along Queens Road (14/17)

- To stop the bus near the sidewalk, marking was installed to clearly show the stop position.
- To improve comfort of bus users, the bus shelter was rehabilitated.

BEFORE

AFTER

Gangaram Bus stop

Waris Chowk Bus stop

Bus Stop Position

1. Corridor Management along Queens Road (15/17)

Plaza Cinema intersection

To prevent reverse lane running of the vehicle at the intersection, extension of the center median and installation of the sign board were conducted.

1. Corridor Management along Queens Road (16/17)

To prevent vehicle collision to the center median at night time, Self-luminous Road Studs were installed on the edge of the center median at the Gangaram Intersection.

To prompt speed reduction of vehicles that enter the non-signalized intersection (Waris Chowk intersection) Self-luminous Road Studs were installed at the boundary of each lane.

1. Corridor Management along Queens Road (17/17)

BEFORE

To prevent pedestrian jaywalking, planters and trees were installed in the Center Median.

AFTER

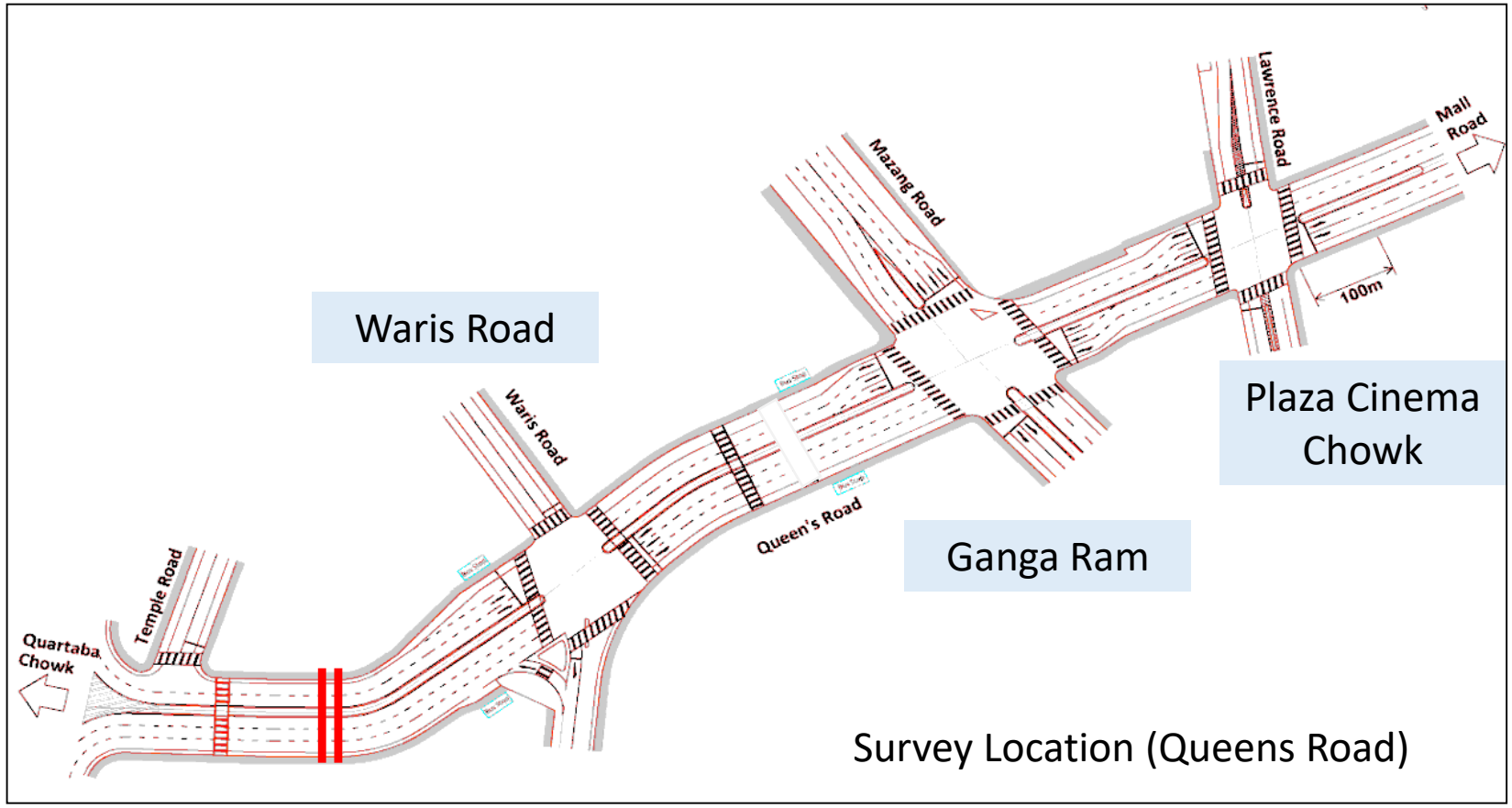
2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

[Type of Traffic Survey]

- Intersection Traffic Flow Survey
- Congestion Length Survey
- Pedestrian Traffic Survey
- Parking Survey
- Interview Survey

[Survey Day]

- Pre Survey: Oct 2017
- Post Survey: May 2018

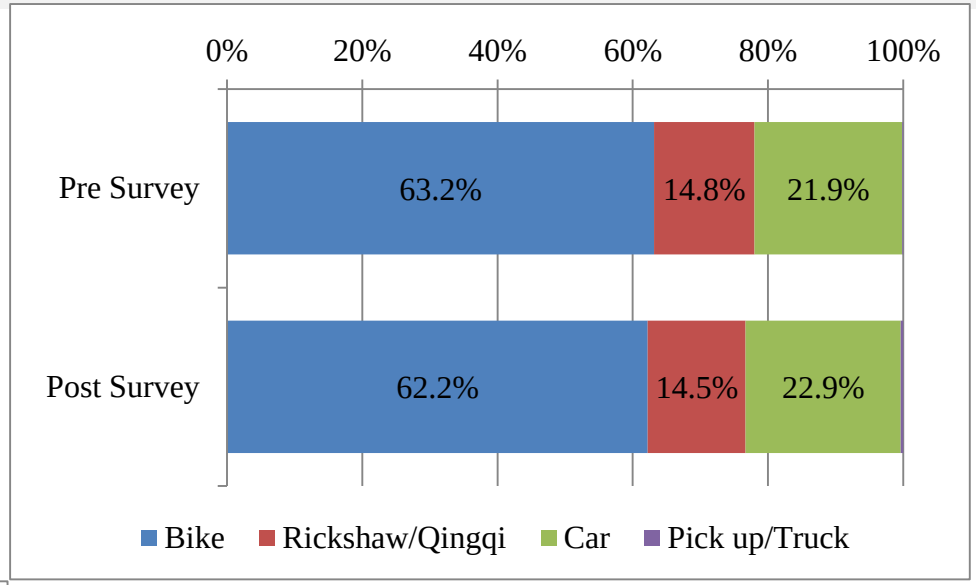


2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

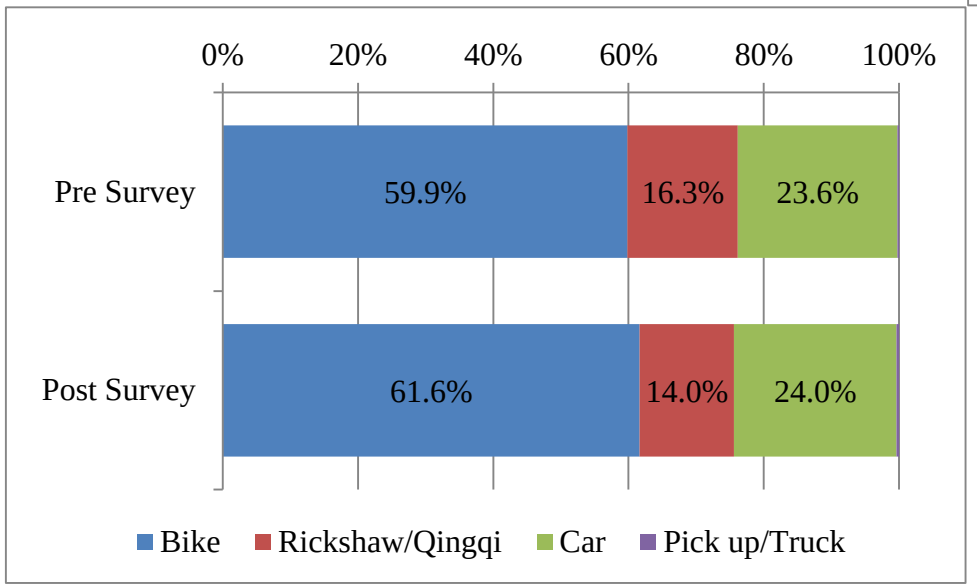
(1) Vehicle Type

- Share of Vehicle type is bike 65 %, Rickshaw 15%, Car 25% ,
- Same share of Vehicle Type between intersections and also pre / post survey

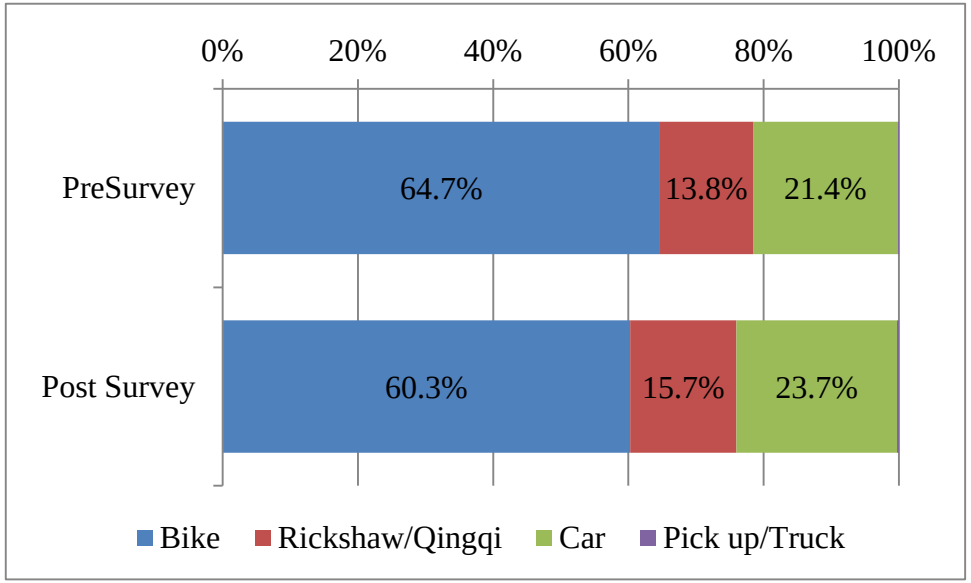
Ganga Ram



Warris Road



Plaza Cinema



2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

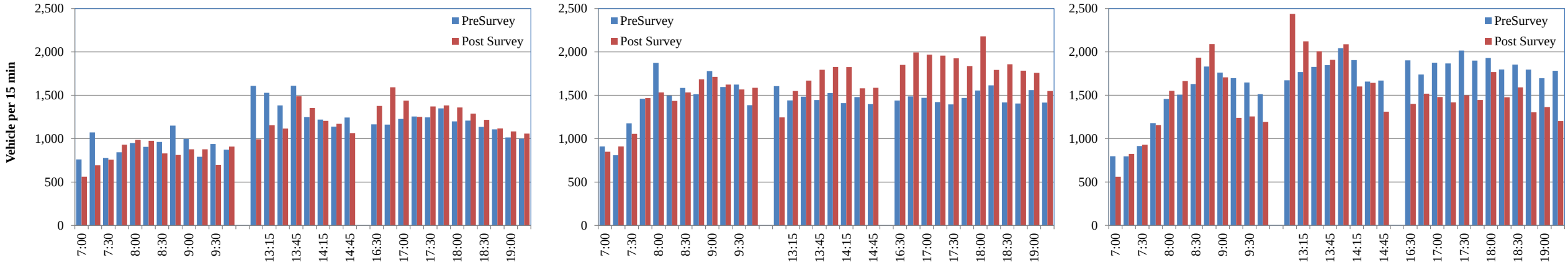
(2) Traffic Volume

- Warris Road is same traffic between pre and post survey.
- Ganga Ram is large traffic at noon and evening time
- Plaza Cinema is small traffic at evening time
- The Driving lane was widen and signal timing was improved by Pilot Project, and roadside parking wad decreased. This resulted short queue length at intersections.
- The change of traffic and queue length is not even and stable at intersection and time, so difficult to result in increase of capacity by Pilot Project.

Total In Flow Traffic (Unit:PCU)

	Waris Road		Ganga Ram		Plaza Cinema	
	Pre Survey	Post Survey	Pre Survey	Post Survey	Pre Survey	Post Survey
7:00-10:00	11,021	9,912	17,211	16,958	16,726	16,101
	90%		99%		96%	
13:00-15:00	10,982	9,550	11,792	13,079	14,390	15,119
	87%		111%		105%	
16:30-19:30	14,071	15,538	17,655	22,456	22,154	17,466
	110%		127%		79%	
Total	36,074	35,000	46,657	52,493	53,270	48,686
	97%		113%		91%	

Time Distribution (Warris Road) (Ganga Ram) (Plaza Cinema)

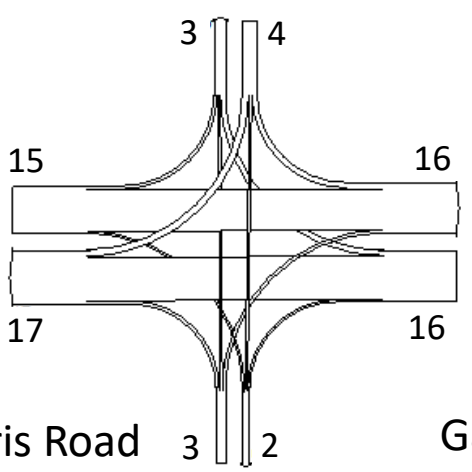


2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

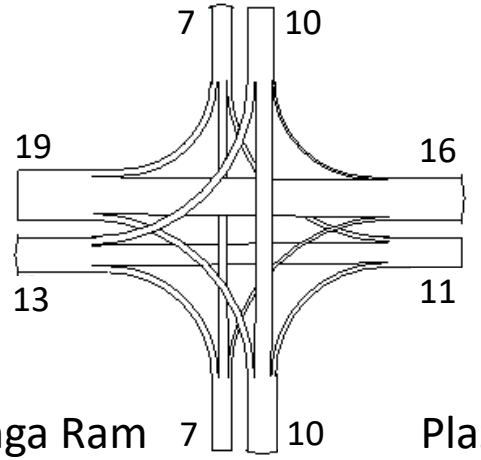
(3) Traffic Flow at Intersections

- Shown the peak one hour traffic flow at intersections, no change drastically between pre and post survey

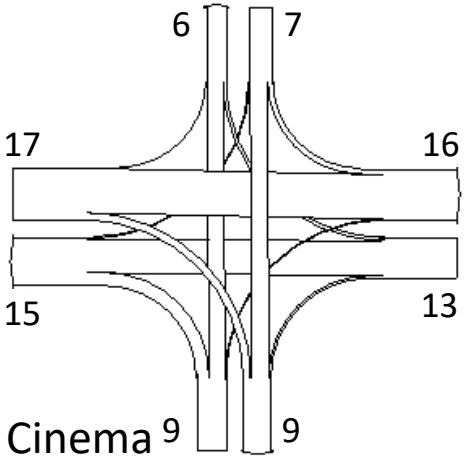
Pre survey: Peak one hour traffic in Unit: 100 PCU / hour



Warris Road

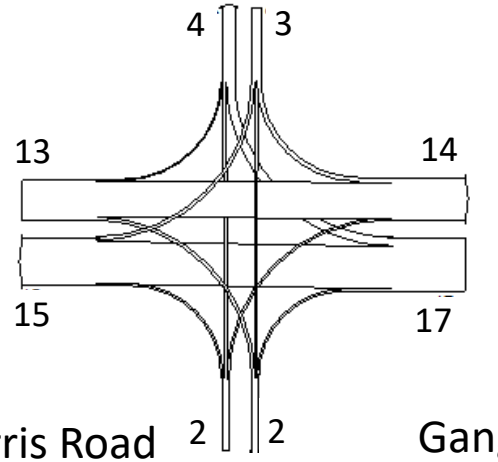


Ganga Ram

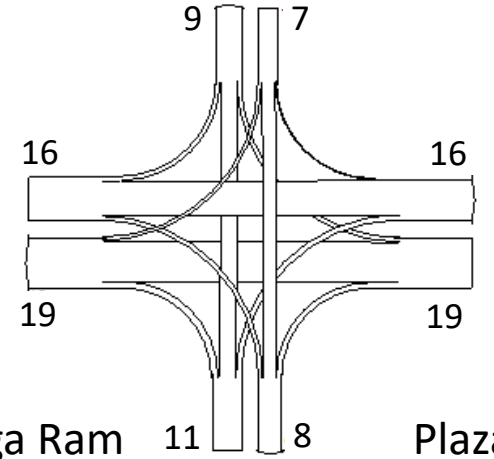


Plaza Cinema

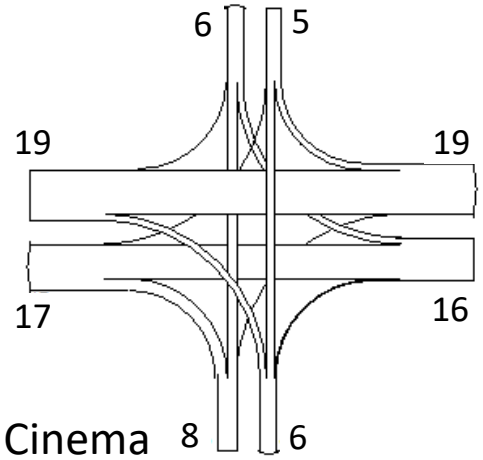
Post survey: Peak one hour traffic in Unit: 100 PCU / hour



Warris Road



Ganga Ram

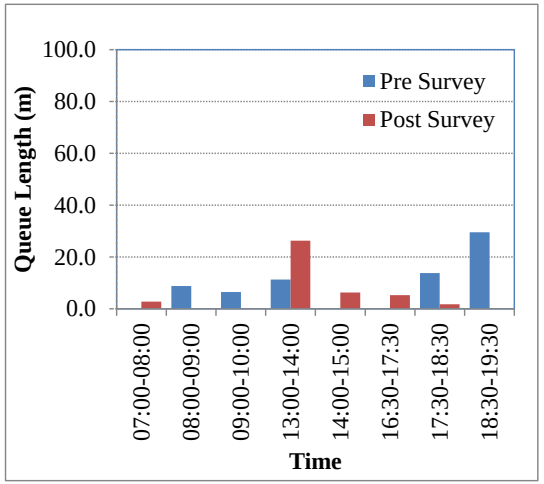


Plaza Cinema

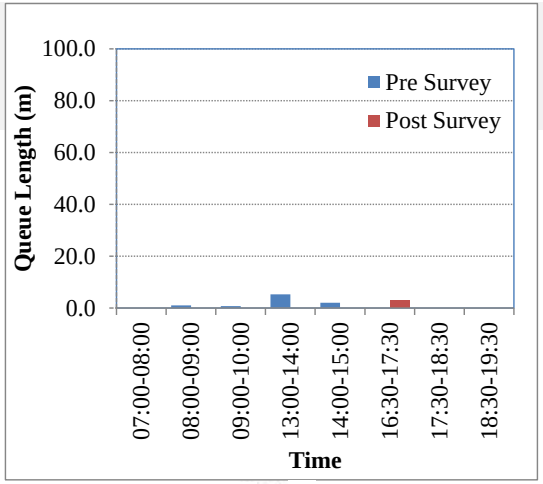
2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

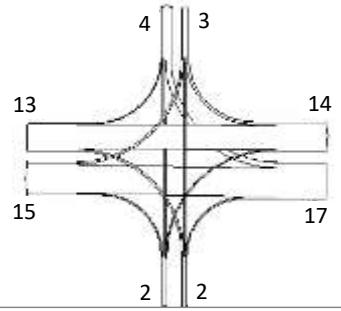
(4) Queue Length at Warris Road

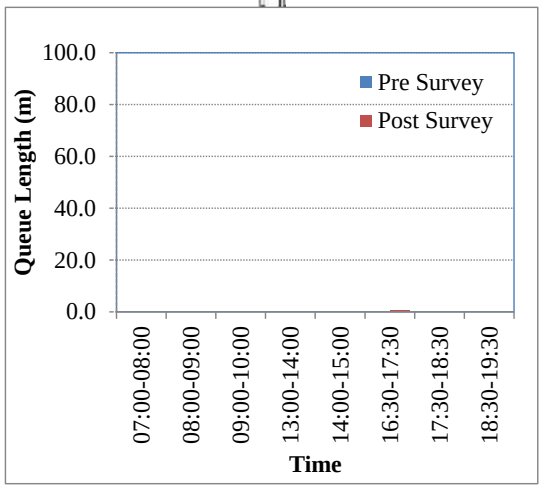
- Very shot queue length, max 25m (5vehicles) on Queens Road
- No change between pre and post

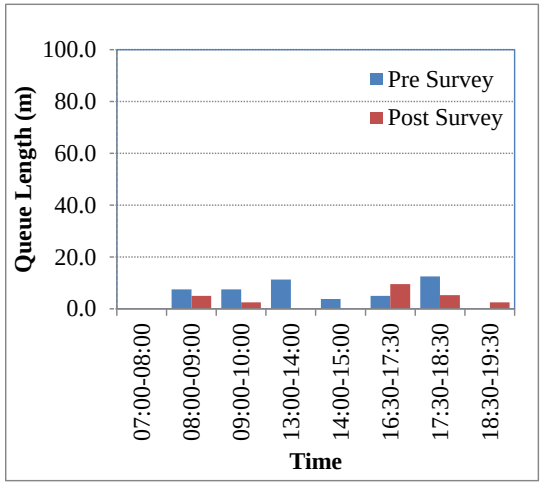


Queens Road
(to Quartaba Chowk)







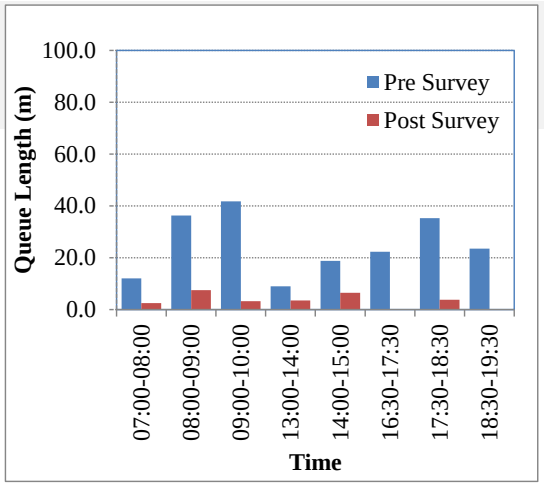


Queens Road
(to Mall Road)

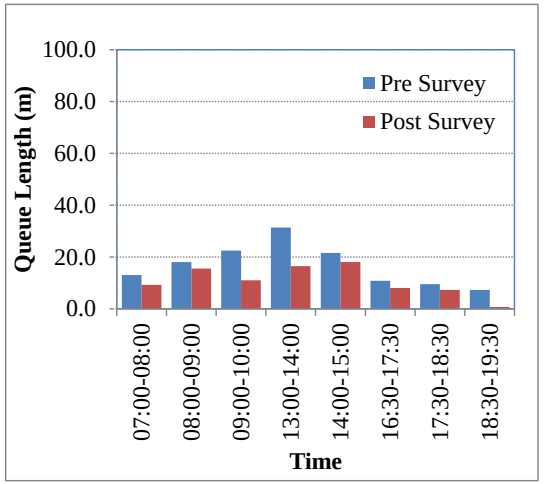
2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

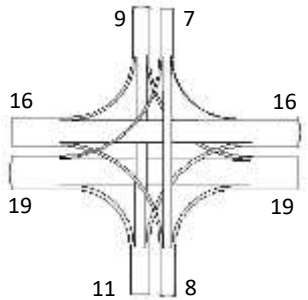
(4) Queue Length at Ganga Ram

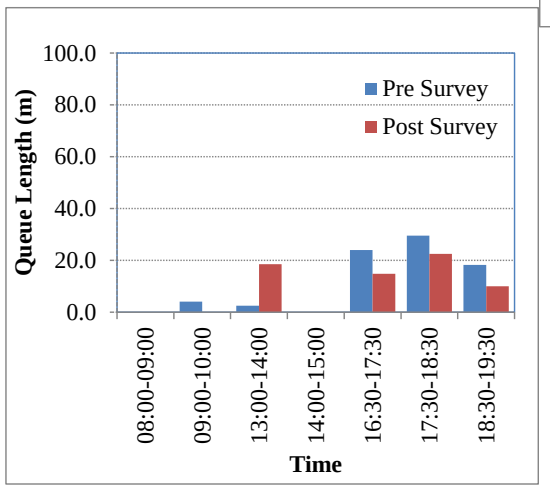
- Queue length is short from pre to post survey, especially Monzang road, which come from improvement of signal timing by PSCA as proposed by TEPA/JICA Team
- But all queue length are shorter than 40 m, (8 vehicles), no traffic jam

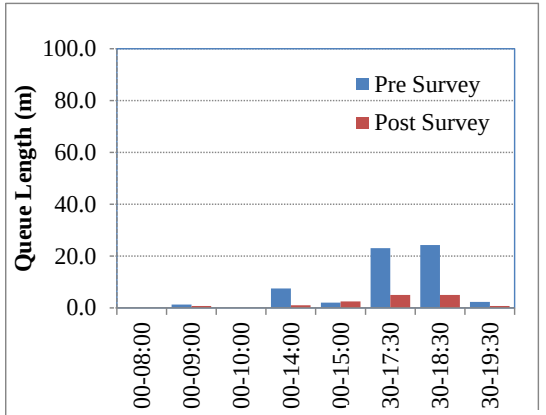


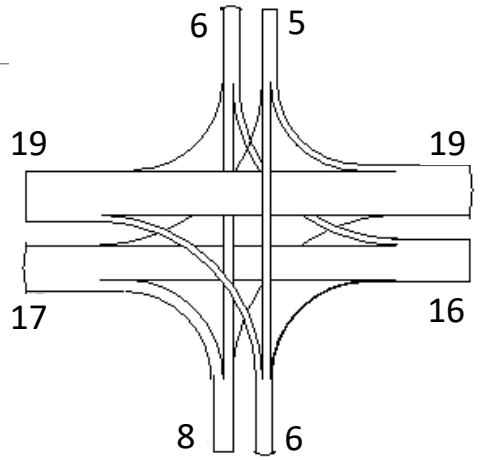
Queens Road
(to Quartaba Chowk)







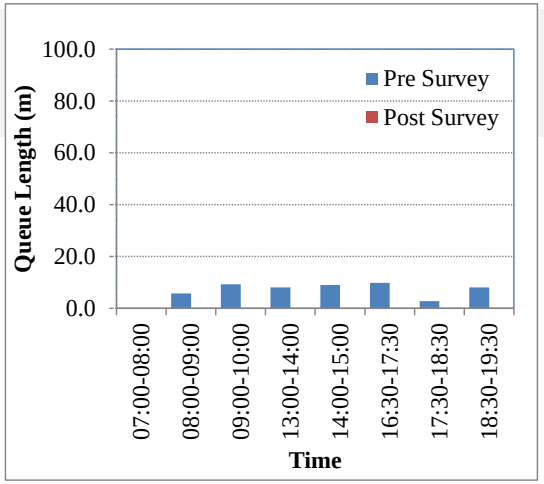


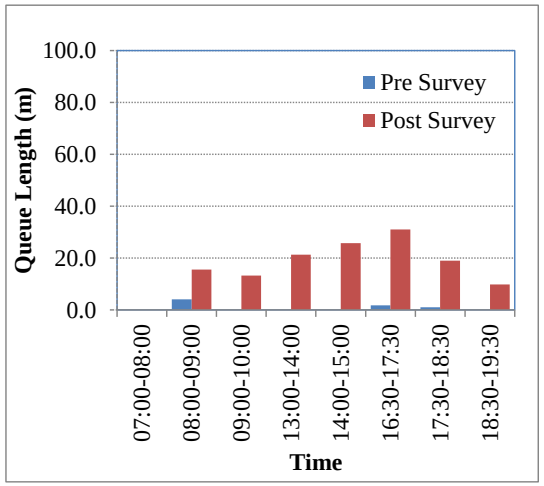


2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

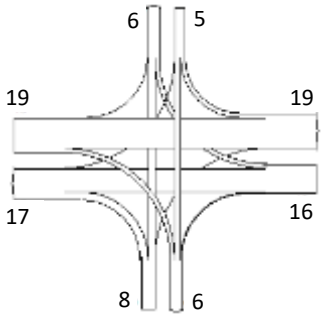
(4) Queue Length at Plaza Cinema

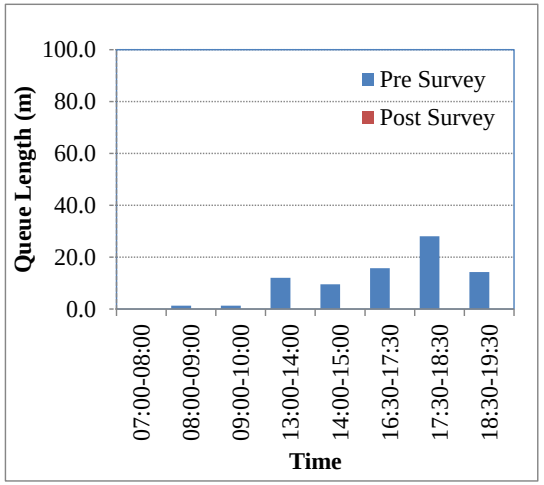
- New queue length occurs at Queens Road South, but just 30 m (6 vehicles)
- Queue length were disappeared at Lowrence Road

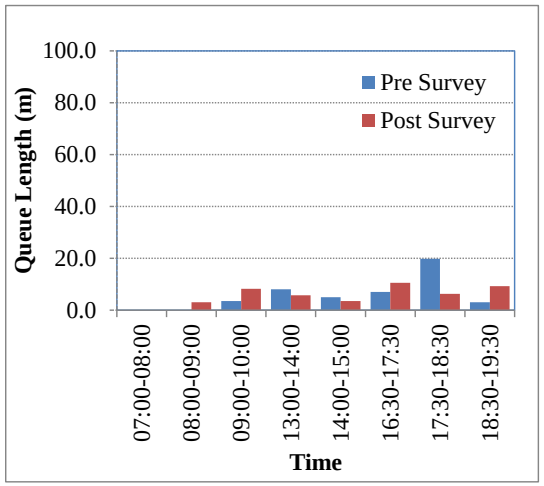




Queens Road
(to Quartaba Chowk)





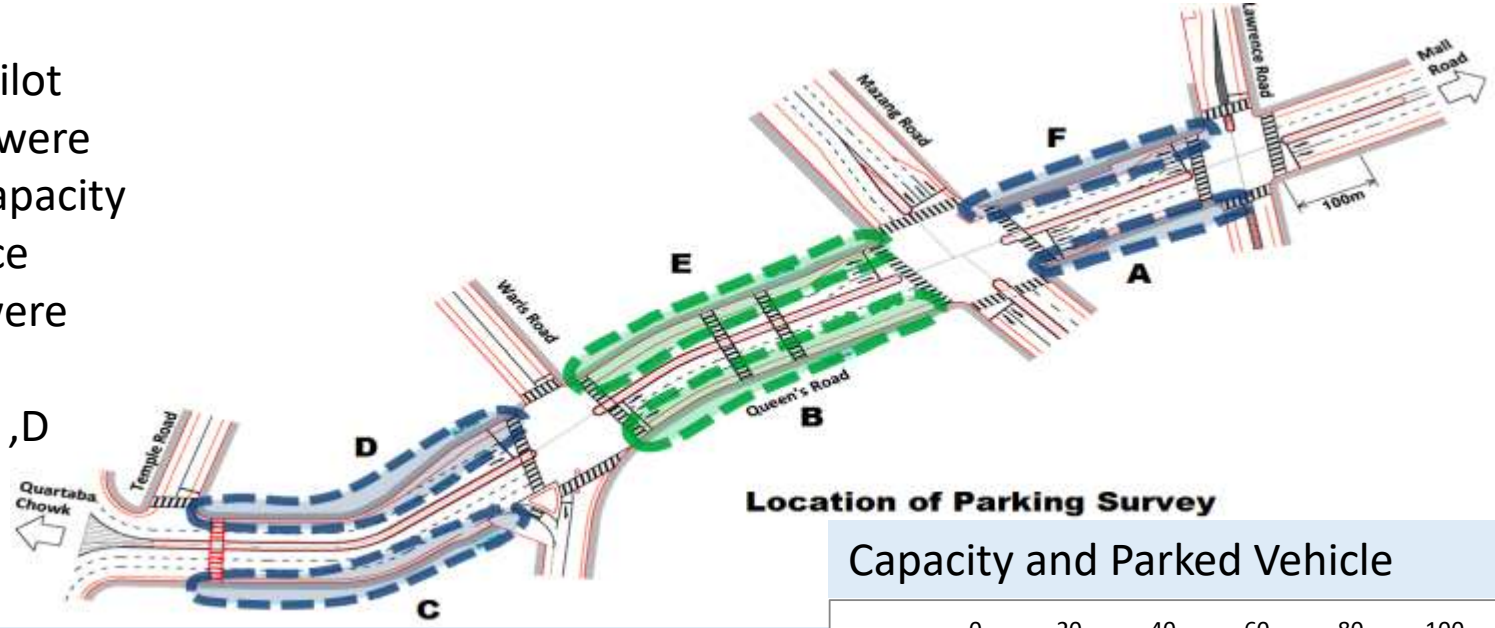


Queens Road
(to Mall Road)

2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

(5) On-street Parking Survey (Location Map and Summary)

- 120 Parking lot were prepared in Pilot Project, but Maximum 394 vehicle were parked, Ratio of Parked Vehicle / Capacity is only 30 %, still lack of paring space
- Many double lane, illegal parking were found in front of school
- Parking time is long at location B, C ,D where is commercial area.

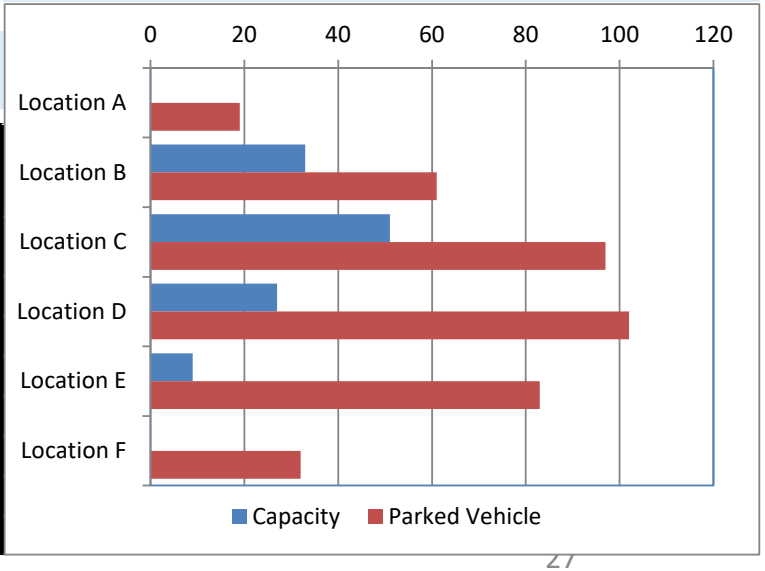


Location of Parking Survey

Parking Survey Result (Post Survey)

Location	Road side Parking Capacity			Max of Vehicles parked	Capacity / Parked Vehicle	Total of vehicles parked	Vehicle Share			parking turnover rate	Total Parking Time (min)	Average parking Time (min)
	Car	Bike	Total				Rickshaw	Car	Bike			
Location A	0	0	0	19		66	8%	36%	56%	3.47	7,950	120.5
Location B	17	16	33	61	54%	290	18%	43%	39%	4.75	26,790	92.4
Location C	20	31	51	97	53%	176	10%	15%	74%	1.81	24,990	142.0
Location D	7	20	27	102	26%	225	1%	55%	44%	2.21	36,960	164.3
Location E	9	0	9	83	11%	127	8%	45%	47%	1.53	35,220	277.3
Location F	0	0	0	32	0%	166	6%	35%	59%	5.19	15,360	92.5
Total	53	67	120	394	30%	1050						

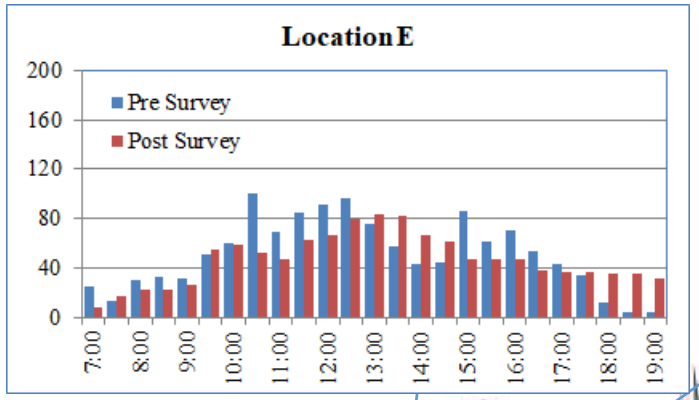
Capacity and Parked Vehicle

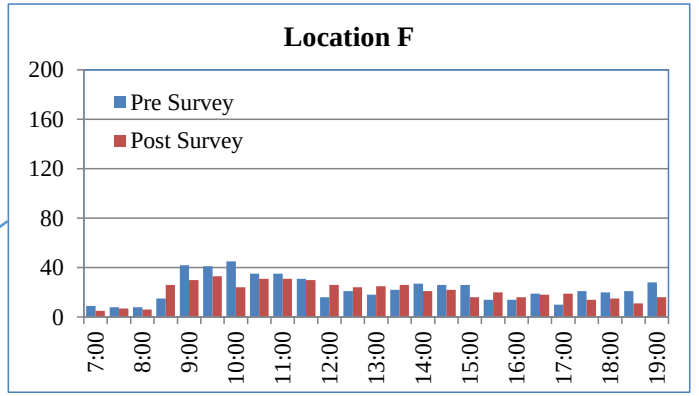


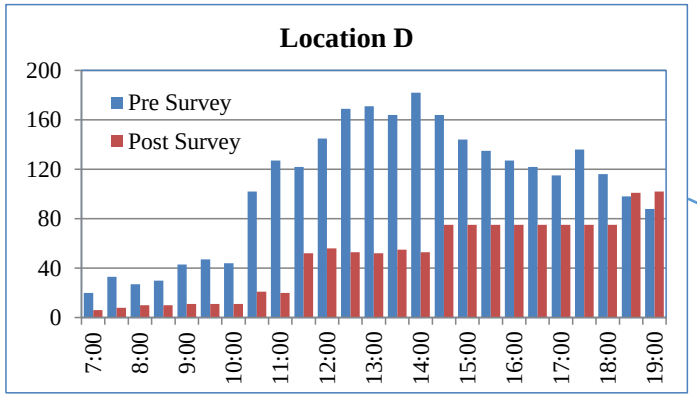
2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

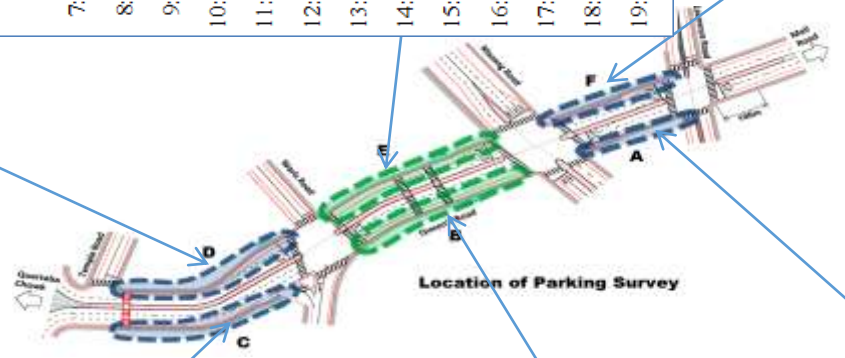
(5) On-street Parking (Time Distribution by Location)

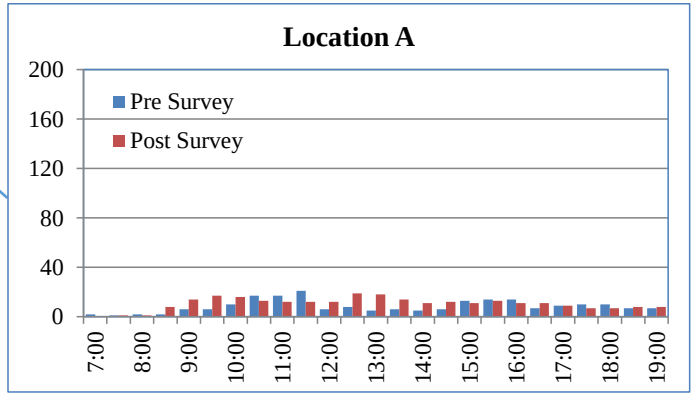
- Parking Vehicle was decreased overall at most location
- Location E has school parking demand, so no change

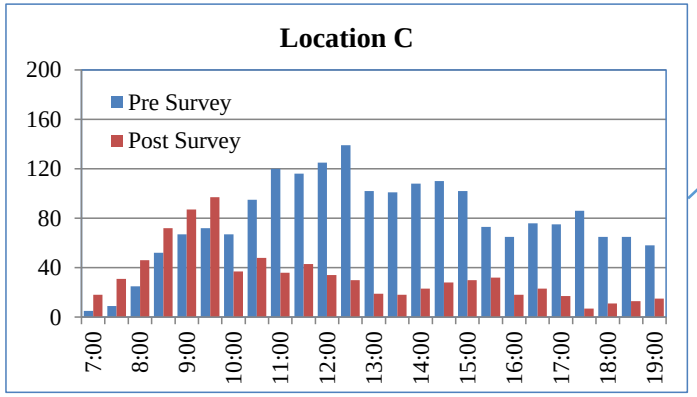


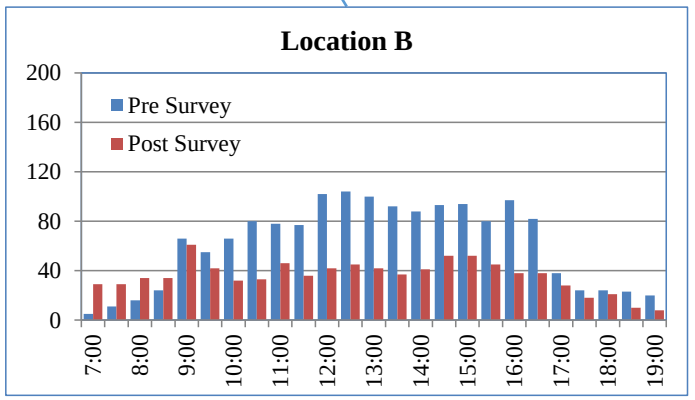








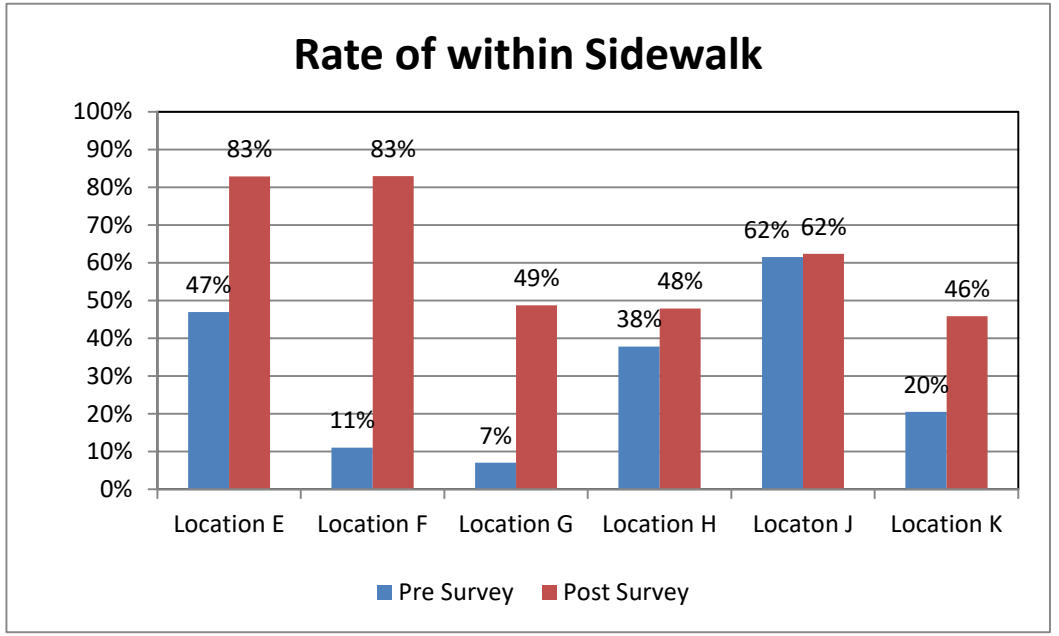




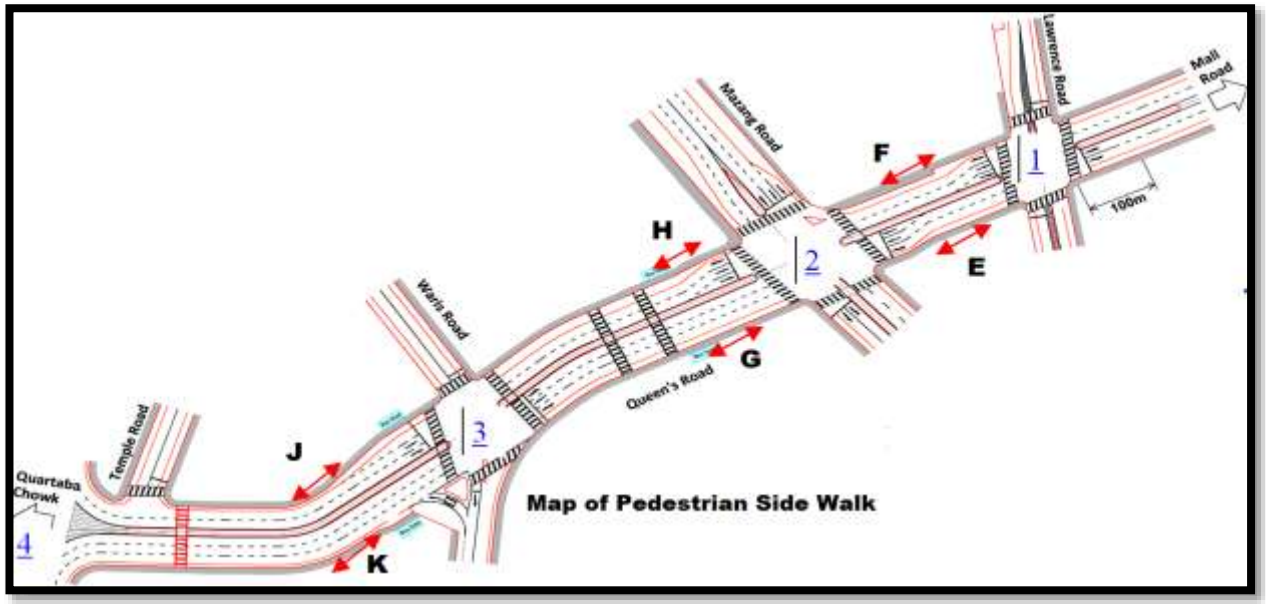
2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

(6) Pedestrian Traffic on Sidewalk

- Rate of within sidewalk increase at Location E, F, G,K, good impact of improvement work for sidewalk.



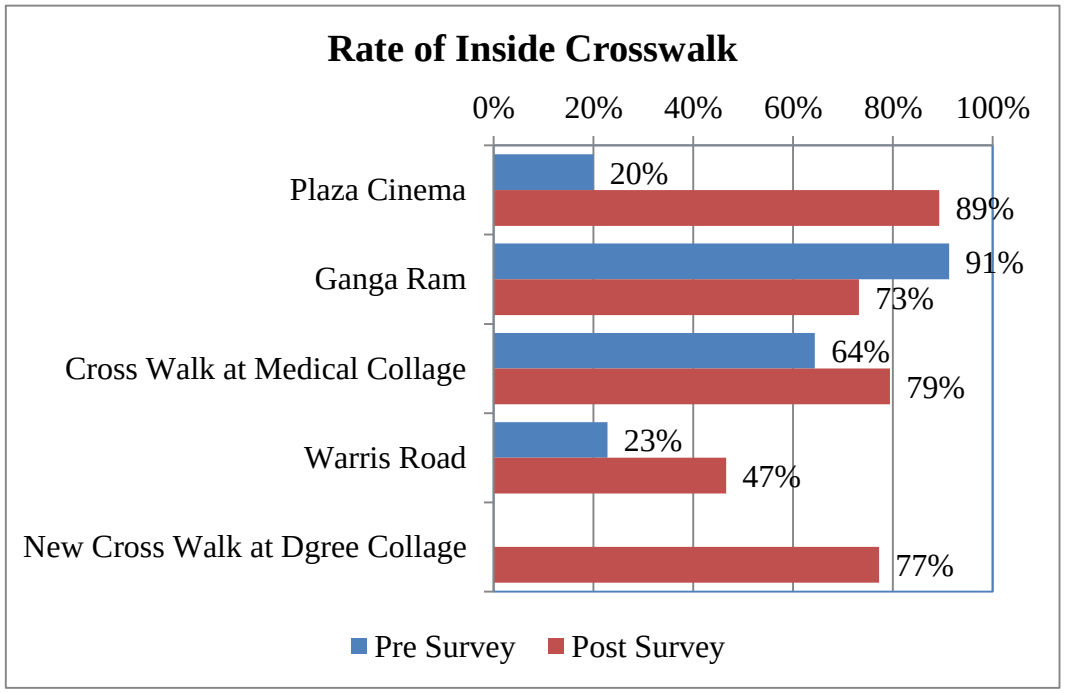
Sidewalk	West side	East side	Total
Existing sidewalk	562m	797m	**1,359m (56%)**
New mount-up sidewalk	498m	309m	**807m (34%)**
New visual separation sidewalk	140m	94m	**234m (10%)**
Total	**1200m**	**1,200m**	**2,400m**

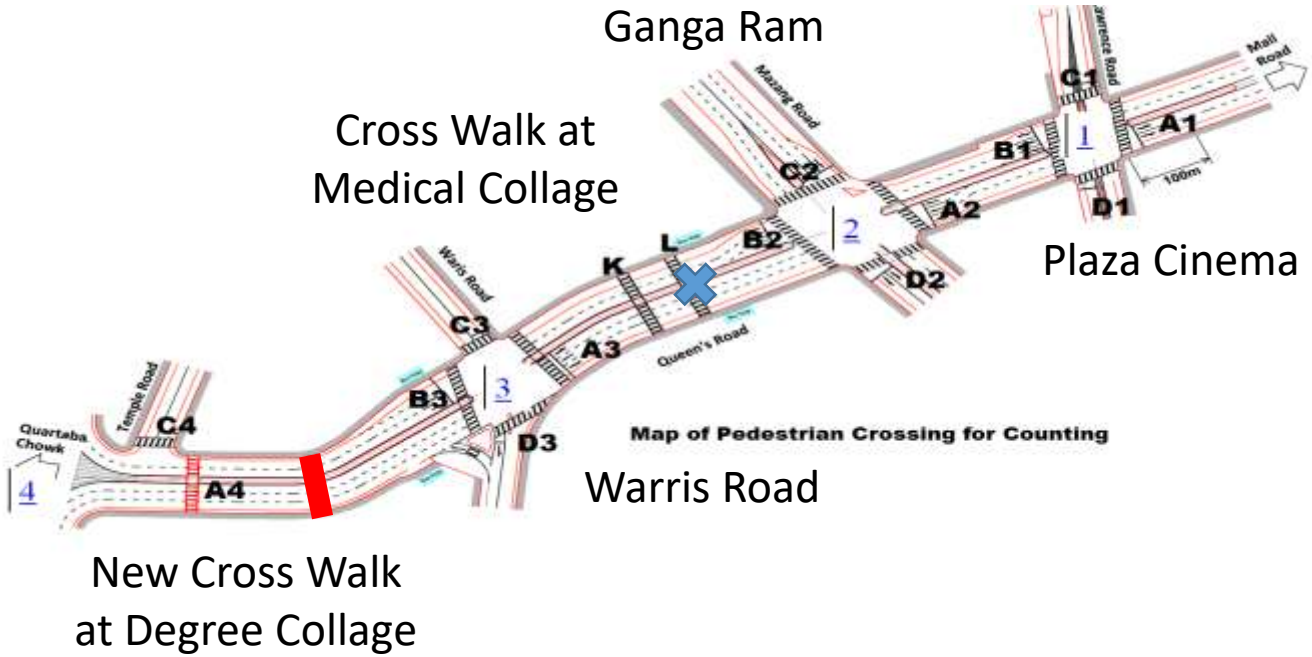


2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

(6) Pedestrian Traffic at Crossing Walk

- The rate of walking inside side walk are increased at most locations, Ganga Ram is decreased but keep high rate with 75 %
- This is the results of impact of pilot project and traffic safety campaign

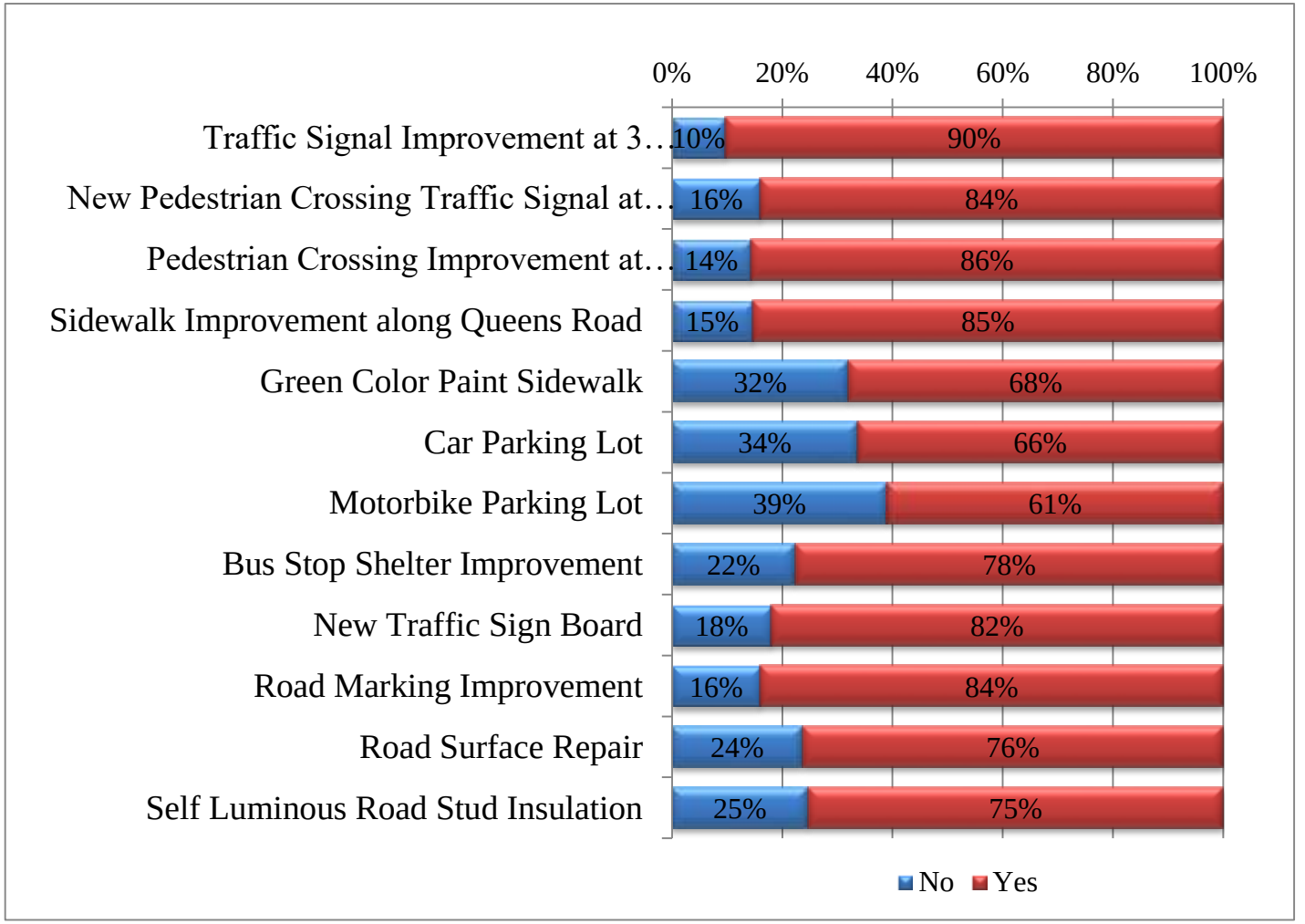




2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

(7) Interview Survey: Do you Know Improvement Work ?

- Green Color paint, Car Parking and Motorbike Parking are low recognition

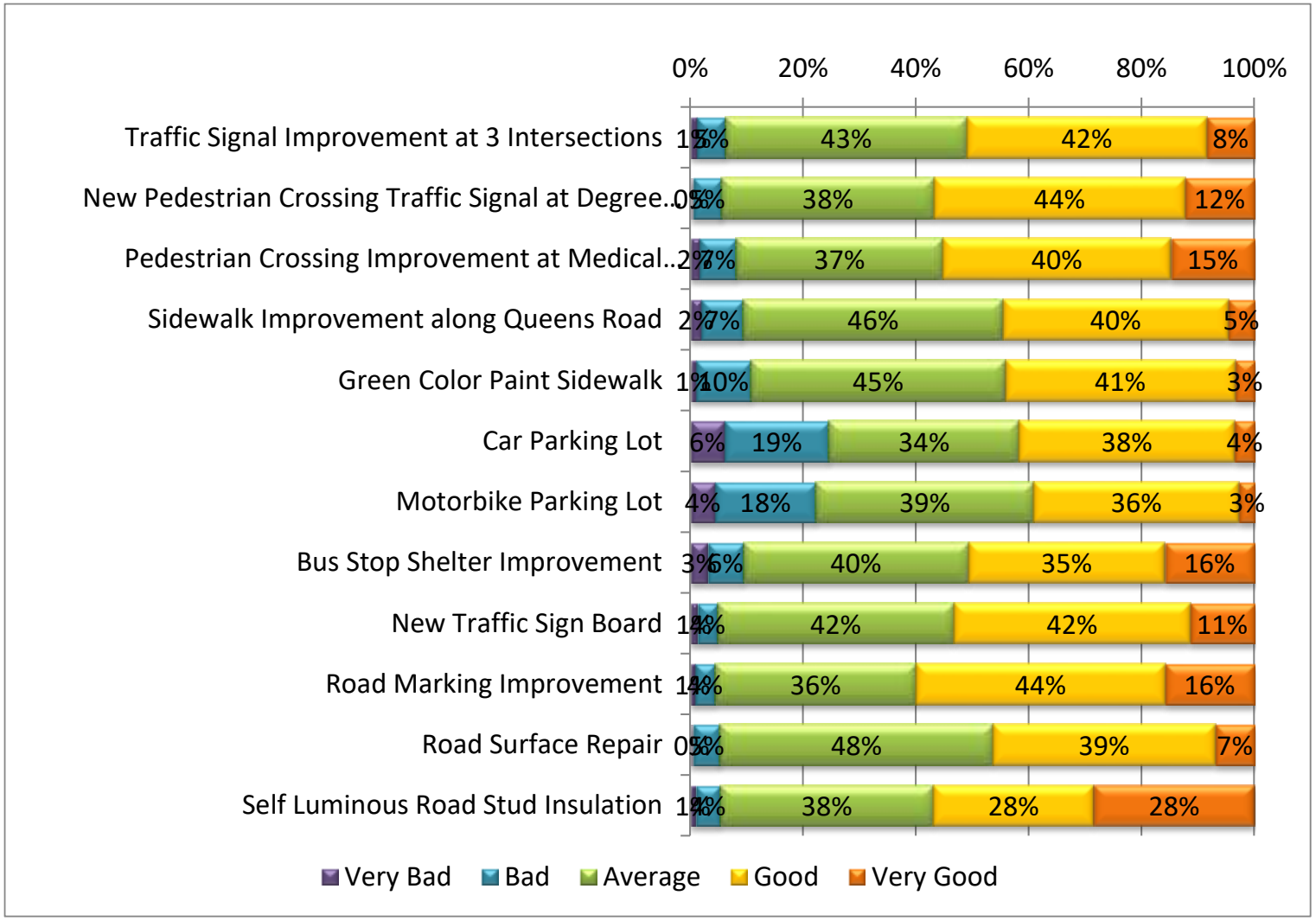


2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

(7) Interview Survey: How do you evaluate the improvement work ?

- High evaluation are Road marking with 60points, new pedestrian signal with 56 points and pedestrian crossing with 55 points
- Low recognition on Green Color paint, Car Parking and Motorbike Parking result in low evaluation

- Points = percentage of good and very good

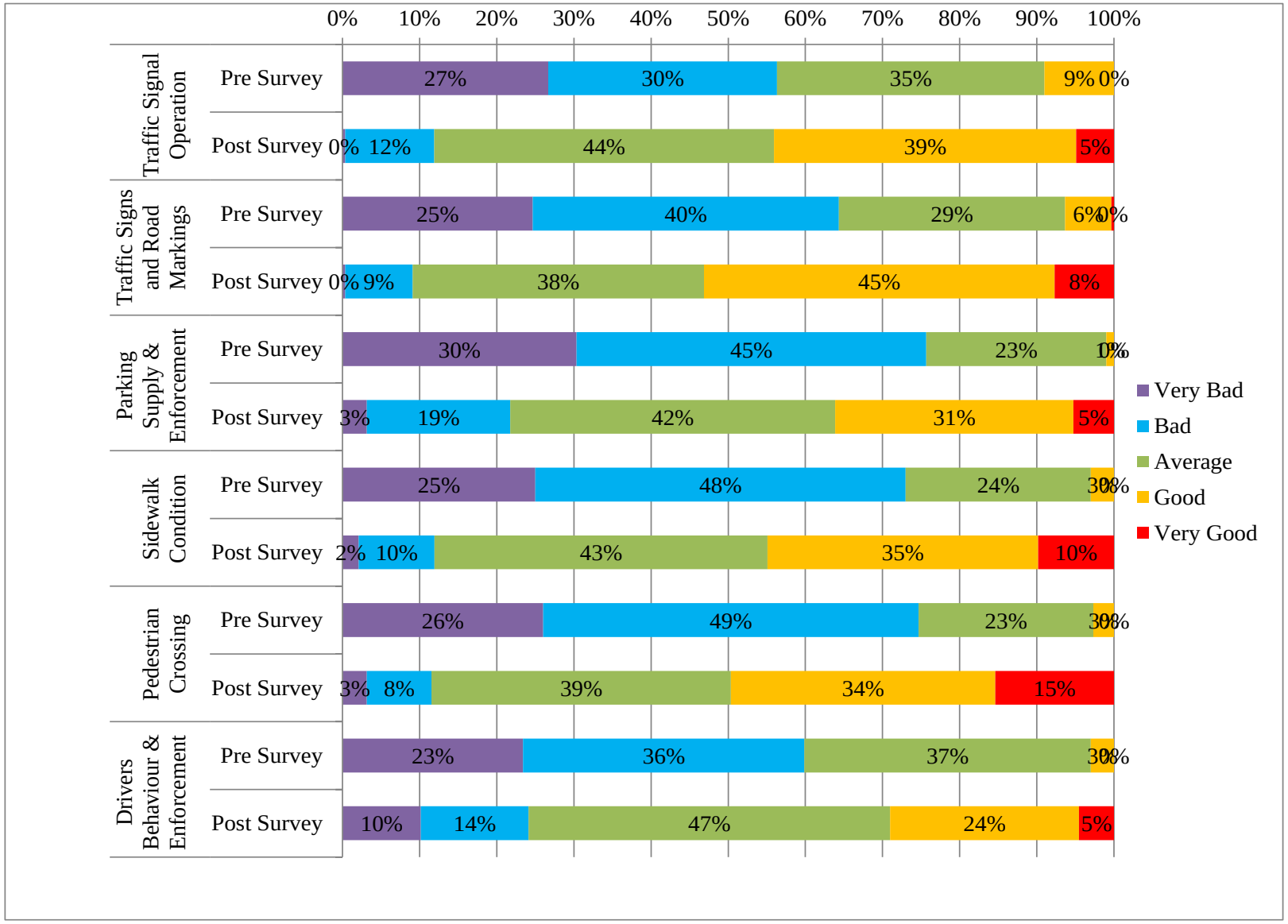


2. Evaluation of Pilot Project (Pre and Post Traffic Survey Result)

(7) Interview Survey: Overall Assessments for Traffic Situation)

- All items are improved
- High evaluation are Traffic signal/ Road marking with 47points increase, Pedestrian crossing with 45 points and sidewalk with 42 points

- Points = percentage of good and very good



Thank you for your attention