

# **ENHANCING LAST MILE CONNECTIVITY**

a safety analysis of the Rajiv Chowk Metro Station



This Report has been prepared as part of the Project being undertaken with NDMC to Enhance the Last Mile Connectivity along the metro stations within it's jurisdiction. The safety audits were conducted by Smt. Anshu Gupta and Smt. Veena, architects from NDMC along with Safetipin team.



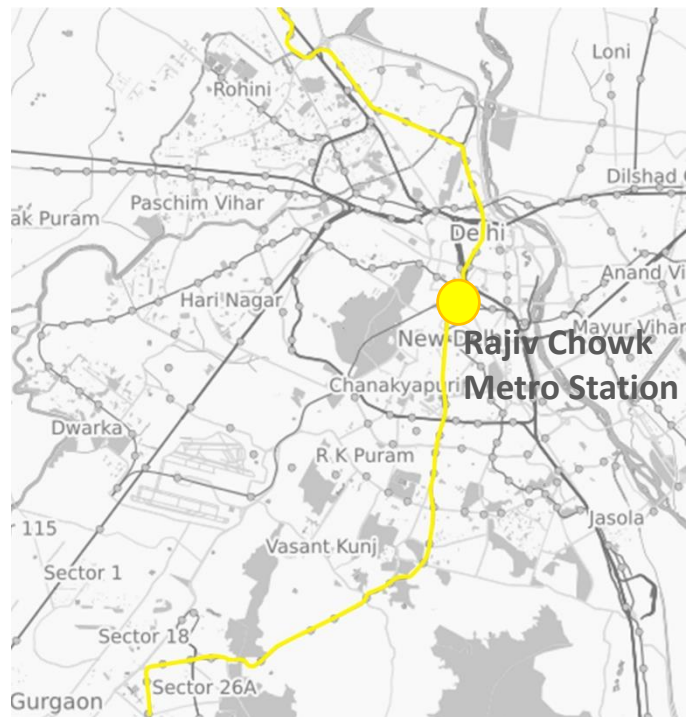
# Rajiv Chowk

**SAFETY SCORE: 3.9/5**

SafetiPin, is a map-based mobile phone and online application, which works to make communities and cities safer by providing safety-related information collected by users and by trained auditors. At the core of the app is the Women's Safety Audit. A Women's Safety Audit (WSA) is a participatory tool for collecting and assessing information about perceptions of urban safety in public spaces. The audit is based on nine parameters – Lighting, Openness, Visibility, Crowd, Security, Walkpath, Availability of Public Transport, Gender Diversity and Feeling.

The audits were conducted along with female architects from NDMC. The assessment was done post sunset till 10pm. A total of 99 audit pins have been generated. The Outer, Middle and Inner Circles of Connaught Place were audited along with the radials upto a small distance.

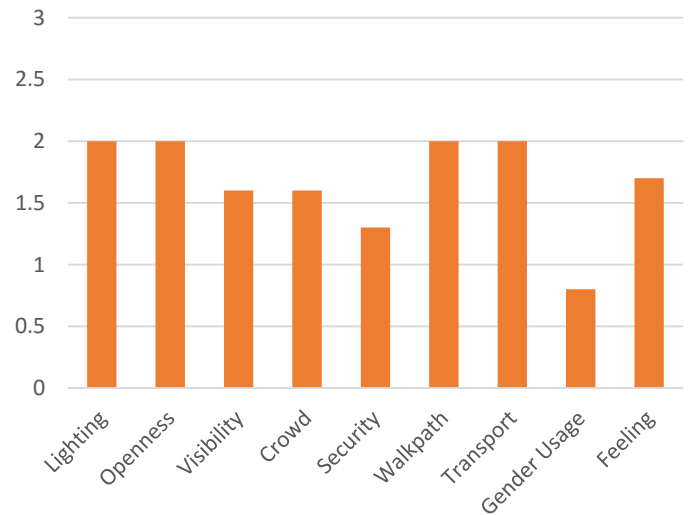
Rajiv Chowk metro station is located in the heart of Delhi – Connaught Place. It is an interchange station of Yellow Line and Blue Line. The metro entry/exit are located along the Inner Circle. Both the Outer and Inner Circles have shops and restaurants which ensures activity even at night. The Middle Circle was earlier mainly a service road comprising offices and banks but is now transforming with many cafes and eateries opening along it.



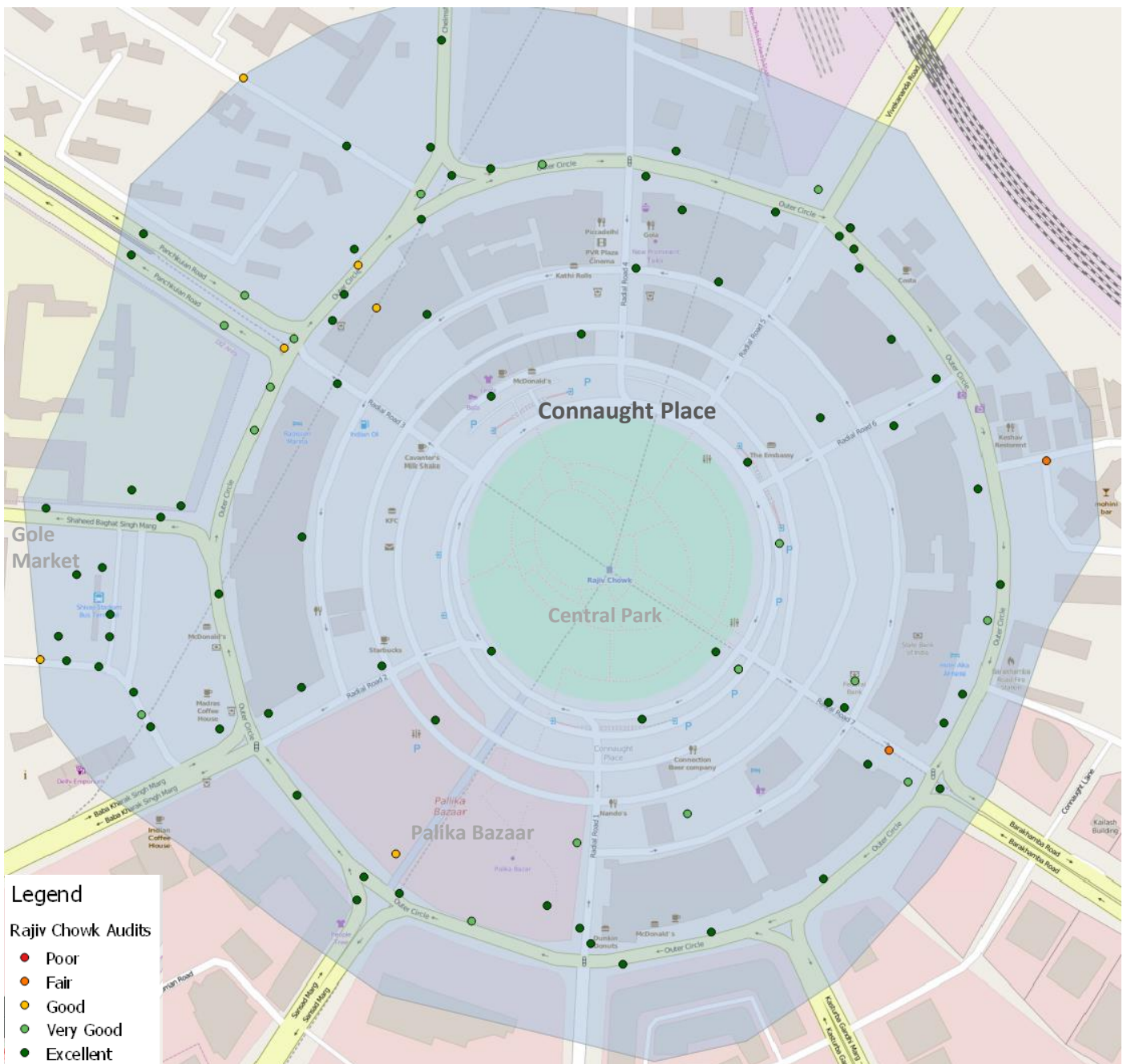


Safety Audits indicate that the area around the metro station is safe. Except for gender usage, most parameters have been uniformly rated Average and Above Average. Lighting, Openness, Walkpath and Public Transport have been rated above average. Visibility, Crowd, Security and Feeling have been rated average. Gender Usage has been rated below average. Improving parameters of Visibility, Security, Lighting and Walkpath will make the area even safer for women to use at night.

The Inner Circle has been rated safer than the Outer and Middle Circles. The radials have varied ratings depending on the building use and edge condition.



Average Audit Parameters (on a scale of 3)

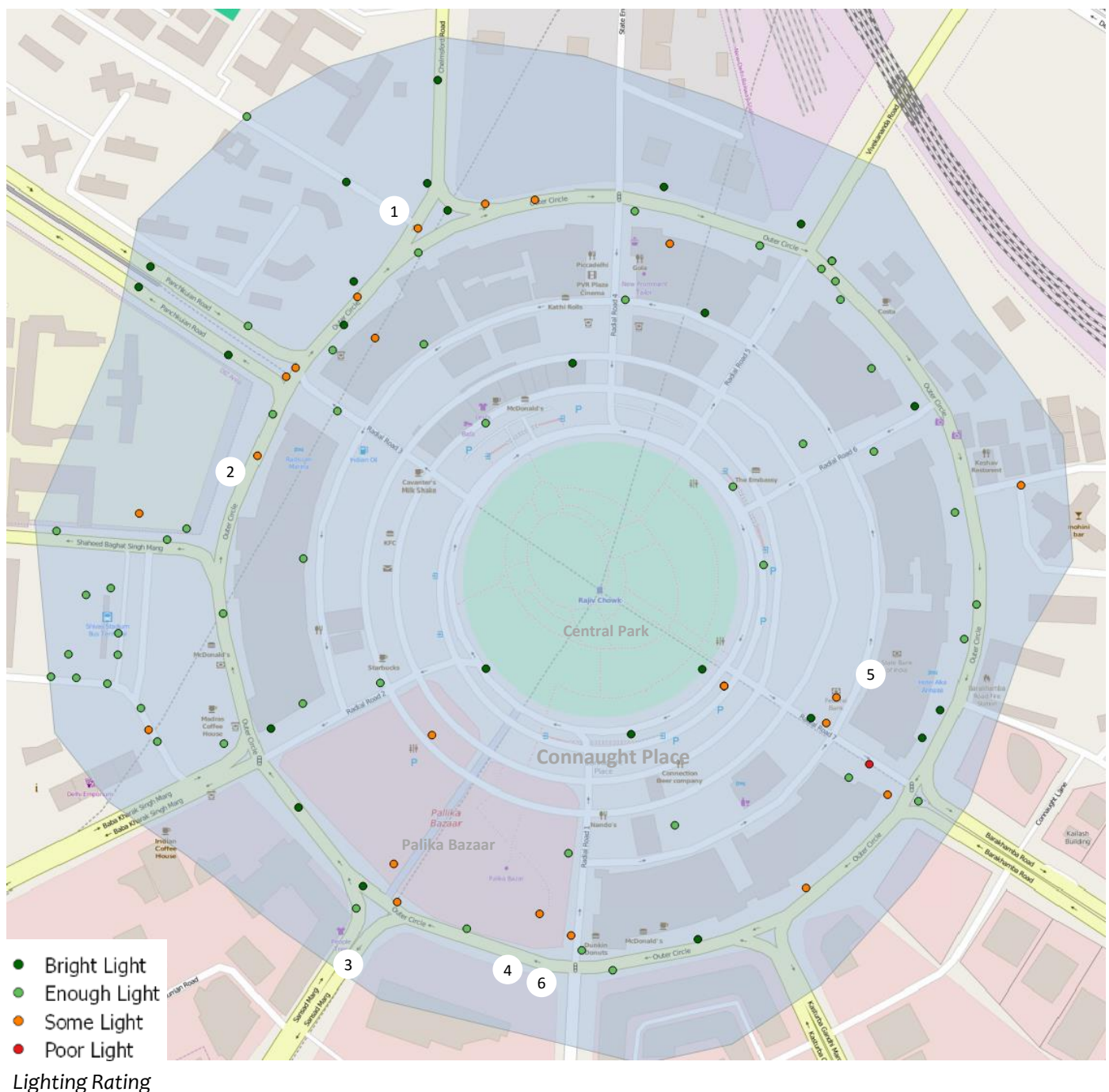


Map indicating Safety Score

# Lighting

Lighting Parameter has been rated 2/3 i.e. Above Average. In most of the audit locations the lighting was found to be sufficient for clear visibility. However, at some locations the illumination level was low. The wide roads have streetlights focused towards the vehicular carriageway and not the walkpaths. Along certain roads where the pavement is wide, the illumination is insufficient. At places there is light mainly from vendor stalls. Pedestrian scale streetlights need to be provided along the building edge to uniformly illuminate the entire pavement. At some points, the luminaire is shielded by tree

leaves casting sharp shadows on the pavement. Regular pruning of tree leaves is a must. But in some areas, the height and location of the streetlights needs to be changed in order to ensure that the pedestrian zone is brightly lit throughout. There are functions like Hospitals and Hostels along the radials. Their entry gates are well lit but the surrounding area has poor lighting. Additional streetlights need to be introduced. The area also has many public toilets. The area around these functions also need to be uniformly lit throughout.







Chelmsford Road intersection



Along Outer Circle towards Panchkuian Road



Sansad Marg

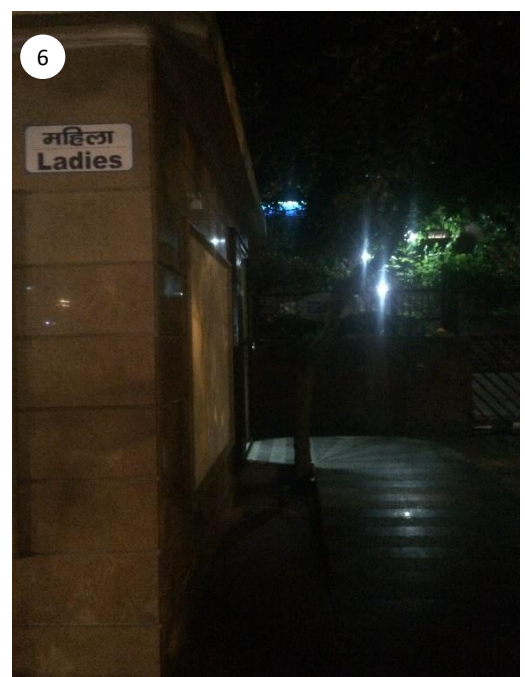


Plaza in front of Jeevan Bharti

The shown photographs indicate the reasons for poor lighting in certain areas. Entry points of buildings and hawkers ensure proper illumination around them but adjacent areas continue to be poorly lit. The existing streetlights need to be made operational and at places additional streetlights are needed. These should be low-height pedestrian scale lights to ensure no obstruction from foliage. The lighting along the Middle Circle was comparatively poor at certain points. Also all Public Conveniences need to be well lit on all sides. Along some the entry was lit only by light coming from inside.



Middle Circle



Public Toilet outside Jeevan Bharti

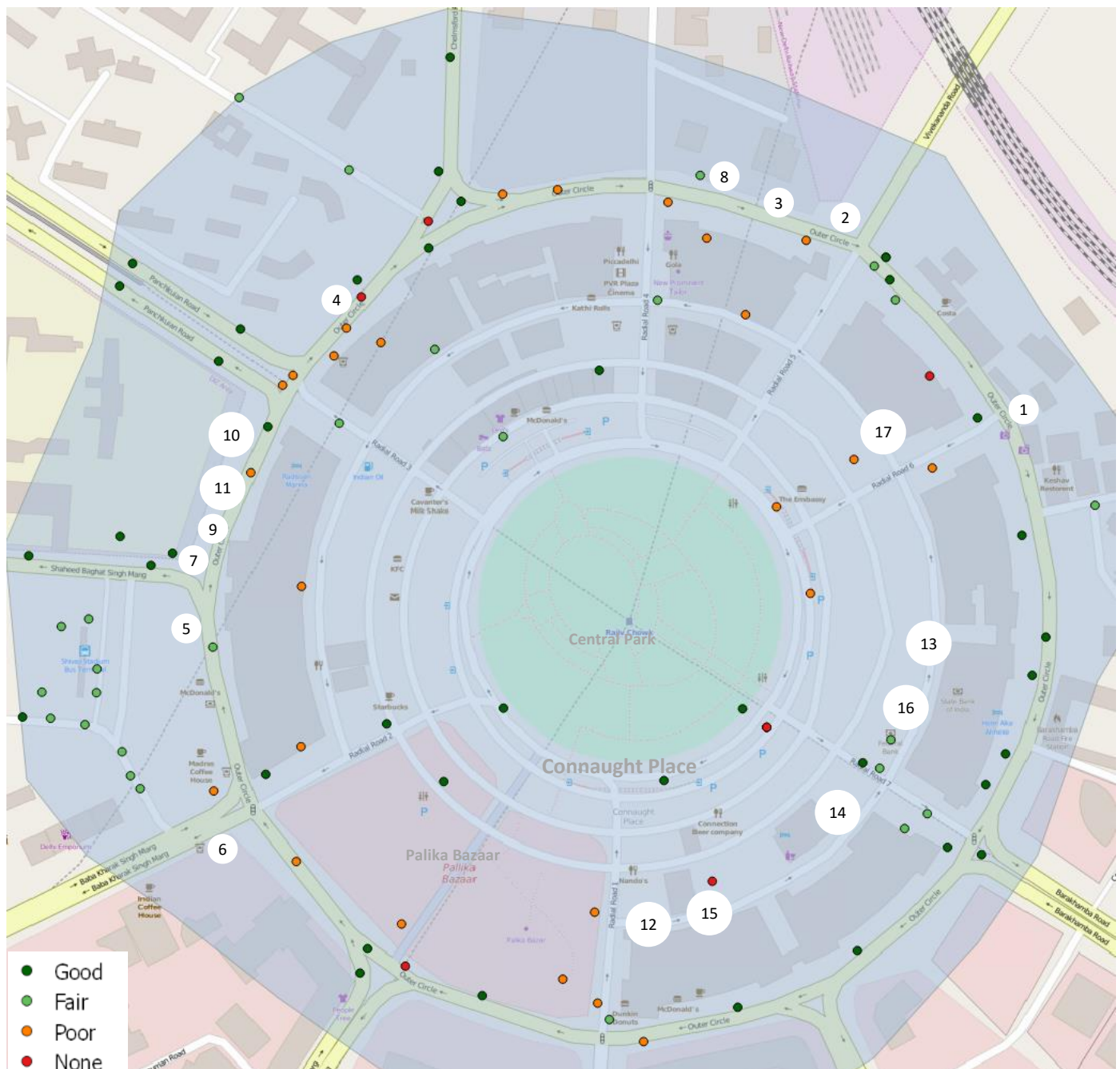
## Walkpath

Walkpath Parameter has been rated 2/3 i.e. Above Average. The Outer and Inner Circles have designated walkpaths which are in fair condition. However, the Middle Circle lacks a proper pavement in most parts of it. Also, along the radials the pavement is not in good condition for people to walk on. The pavement is broken in many parts. This needs to be fixed. The edge of the pavements need to have ramps to allow access for the differently abled people. Tactile paving needs to be provided throughout in a continuous and obstruction-free manner.

Many obstructions were noted along the pavement

like dust bins, light poles and signages. These should be located clear of the walking area. At certain locations built structures occupy the pavement leaving very less or no space at all for people to walk. The pavement needs to be widened to ensure a comfortable uniform width of walking space for all. Cars are seen parked along the pavement despite Connaught Place having designated vehicular parking. No vehicles should be allowed to park on the pavement.

Hawker Zones need to be created such that the pedestrian walking space is unhindered.



### Walkpath Rating





*The pavement and table top need to be properly flushed with a ramp to mitigate the level difference and ensure smooth pedestrian movement. All wires and drain pipes need to be underground and not be protruding onto the pavement as is seen here.*



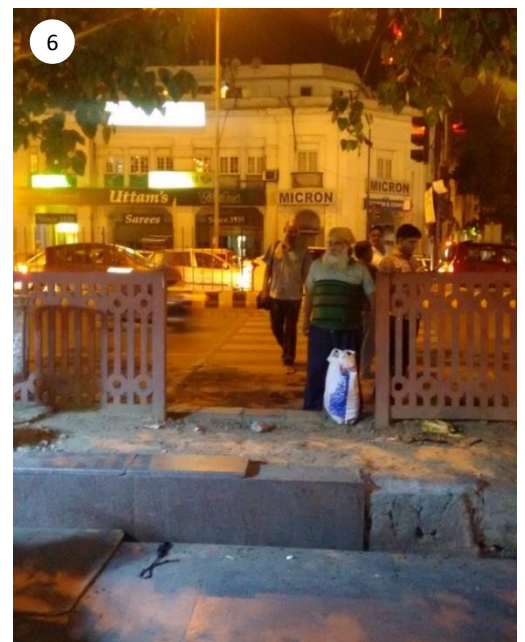
*The manhole covers need to be properly flushed with the pavement surface. Tactile paving also needs to be provided throughout the length of the pavement. This too should be unobstructed and continuous. The junctions (of the pavement and zebra crossing) need to have ramps.*



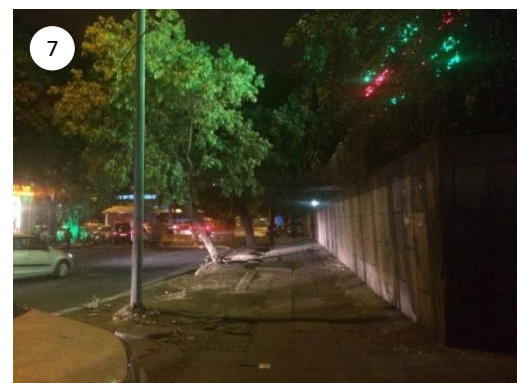
*The dust bins and signages need to be located clear of the walking space. Their current location hinders movement especially for people on wheelchair. Regular pruning of trees is essential to ensure there are no low hanging branches. Garbage and other such waste should not be left on the pavement and be cleared immediately.*



*Tactile paving has been provided in certain areas in the Inner Circle. Currently this is only at some places and is also discontinuous. This needs to be continuous with proper detailing at intersections.*

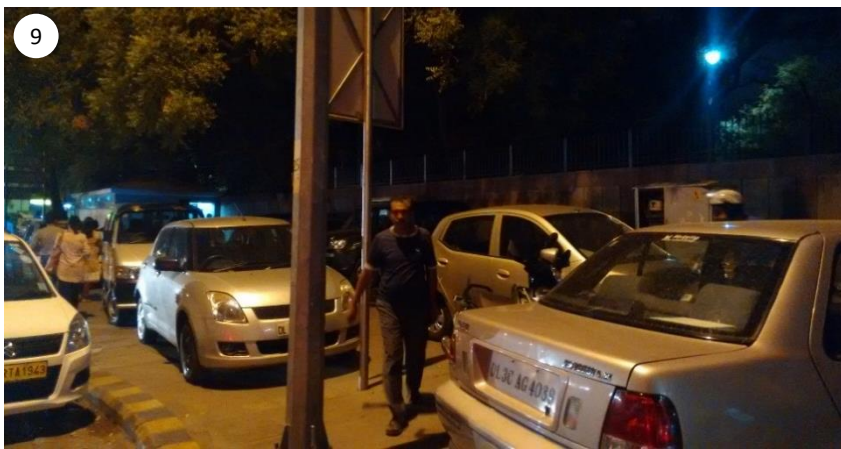


*The footpath needs to be at level with the zebra crossing and the plaza paving to which it connects. The pavement need not be at a higher grade but at the same level connected via a ramp.*



*The pavements are broken in many areas making walking uncomfortable. These need to be repaired.*





Many vendors are seen at some locations along the Circles as well as the radials offering the much needed eyes-on-the-street. However, due to the absence of a proper designated zone, they are currently occupying the pavement. While this introduces the much needed activity along the stretch, for pedestrians they are an obstruction. The pavement needs to be widened. Proper space needs to be designated for vendors along the built edge such that the pedestrian walkpath is unobstructed.

At many locations vehicles are seen parked on the pavement forcing people to walk along the vehicle carriageway. This also damages the pavement in the long run making it difficult to use when vehicles are not parked on it. The area has designated vehicular parking and vehicles must not be allowed to park on the pavement. The parking zones should be well lit and have public convenience and street furniture especially for the use of drivers.

At many points small structures, like the Delhi Tourism Office seen in pic 11, are located on the pavement leaving no space for pedestrians. No such structures should be constructed in the future. In the locations that they currently exist, these should either be removed or the pavement be widened to ensure there is continuous walking space for the pedestrians. Infrastructural elements like electrical units should also be re-located so as to leave clear walking space.

The Middle Circle currently seems to serve the purpose of a Service Alley having the backs of the Inner and Outer Circle. Cafes and Restaurants are starting to come up here but the lane largely has offices and banks and vehicular parking. There is no pavement along most of its circumference. At places where it does exist, vehicles are often parked on it or it is too narrow to be comfortable to walk on. Proper pavement needs to be constructed throughout.





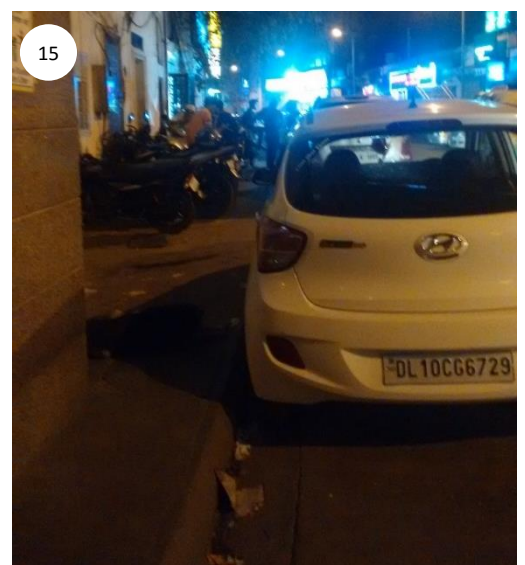
*The Public Conveniences provided along the Middle Circle currently sit facing the road making it difficult for women to both use and cross them. Also, along these toilets the pavement either doesn't exist or is too narrow. A wide pavement needs to be built. The design of these toilets should be changed such that the entry is from the sides. This would not disrupt the pedestrian movement or cause discomfort to the female users. Also, a handicap toilet needs to be added to these.*



*Seen in the pic above is a footpath which ends at the built façade. A pavement needs to be built along the building edge such that it is continuous and free from any obstruction. Encroachment needs to be removed and the public right-of-way should be reclaimed. Also seen is the staircase for the Utility Tunnel of the Middle Circle. These service elements result in the creation of a negative space along its edges. Such areas can be used to provide street furniture and other amenities especially for the staff, drivers and for the floating population. It can also be landscaped (as seen below) to create a positive space.*



*Seen above is the absence of any pavement along the Middle Circle. The lane has many public toilets and garbage collection points. However, in the absence of regular garbage collection, the garbage is strewn all over the area. Hand-drawn carts are also used which are parked along the road due to lack of proper designated space. The garbage collection needs to be streamlined so as not to cause inconvenience to the people. A proper pavement needs to be built, free from any obstruction and disabled-friendly. Also, street furniture needs to be provided clear off the walking space. Currently the maintenance staff and drivers are forced to squat on the garbage itself.*



*At locations where the pavement exists, it is too narrow for people to comfortably walk on. Vehicles parked on the pavement further add to the woes of the pedestrians.*

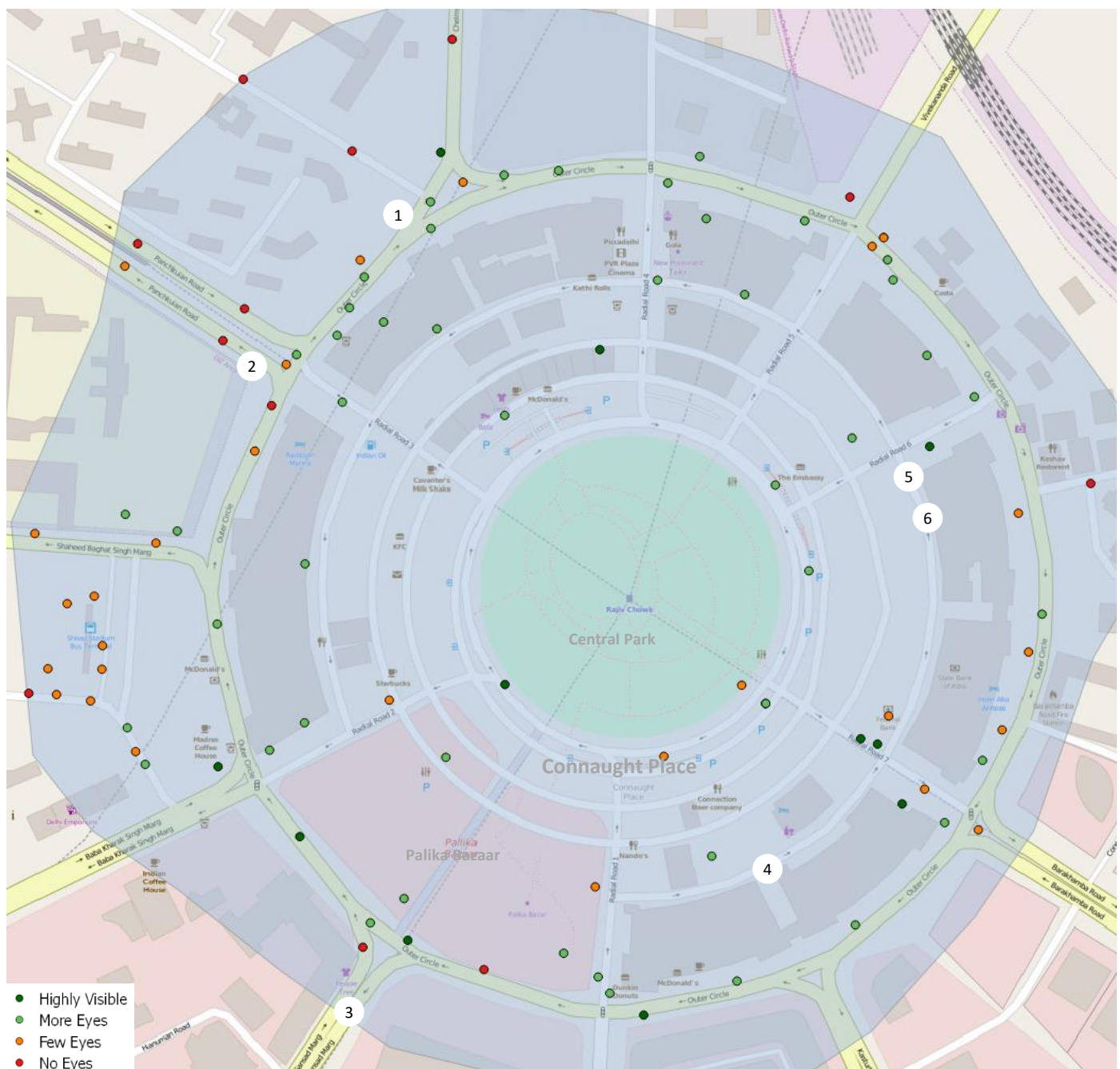


# Visibility

Visibility Parameter has been rated 1.6/3 i.e. Average. The Outer Circle has shops and restaurants along with many hawkers in some parts due to which visibility is high. Along the radials the built use varies resulting in low visibility, for example along the edge of the Northern Railway Central Hospital which is defined by a high boundary wall creating a blank edge. Designated Hawker Zones need to be created. These can be easily created along the existing Public Conveniences. Lighting needs to be improved and street furniture should be added. Vehicular movement and Parking Areas need to be defined so as

not to intersect with these zones.

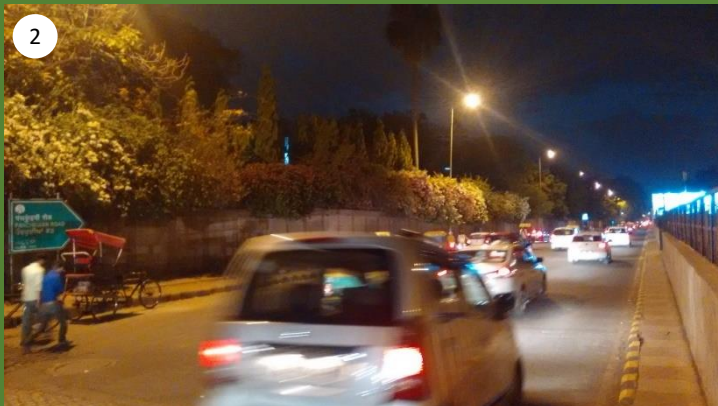
The Inner Circle offers very high visibility. The Middle Circle has many offices and banks along with cafes and restaurants which have started coming up in certain parts of it. The area around the cafes offers some visibility but since the offices and banks are closed at night, the visibility is poor. ATMs can be included in these banks. Some hawkers were also seen in few places and proper hawking zones should be created for them. This would also help segregate the Parking Zones from the activity areas.



Visibility Rating



Chelmsford Road intersection



Panchkuian Road

Many stretches of the Outer Circle are defined by huge boundary walls which offer no eyes-on-the-street. At the entry gates of a building, there are a few hawkers along with cycle-rickshaws and auto-wallahs. But largely the periphery offers low visibility. Hawker Zones should be created at the entry gates along with para-transit stands. These should have Public Convenience and street furniture.

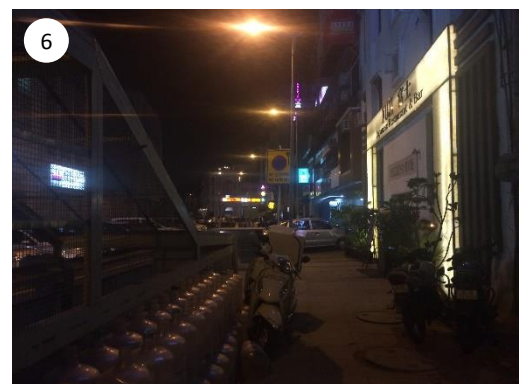
Also seen in some parts of the Outer Circle, are hawkers squatting on the pavement in the absence of a designated space. The Outer Circle has wide pavements which can easily accommodate a Hawker Zone leaving comfortable walking space for pedestrians. These should have a Public Convenience along with adequate street furniture. Seen below is a Public Convenience along which a proper hawking zone can be created.



Sansad Marg



Plaza connecting Middle and Outer Circle



The Middle Circle has mixed ratings for visibility owing to different building uses. Many cafes and restaurants are operational in this circle with some even having outdoor seating. The area outside these should be properly developed to have outdoor seating such that it does not disturb the pedestrian movement.

Certain parts like the plaza connecting the Middle and Outer Circle should be pedestrianized with space for hawkers. No vehicle should be allowed to enter or park in this space. Separate parking zones exist already.

The area along the Service structures like the staircase to the Utility Tunnel should be properly paved and have street furniture. Currently, the space is used for vehicular parking while it has the potential to be a more usable space. Alternatively, this space can also be used as a Hawking Zone.

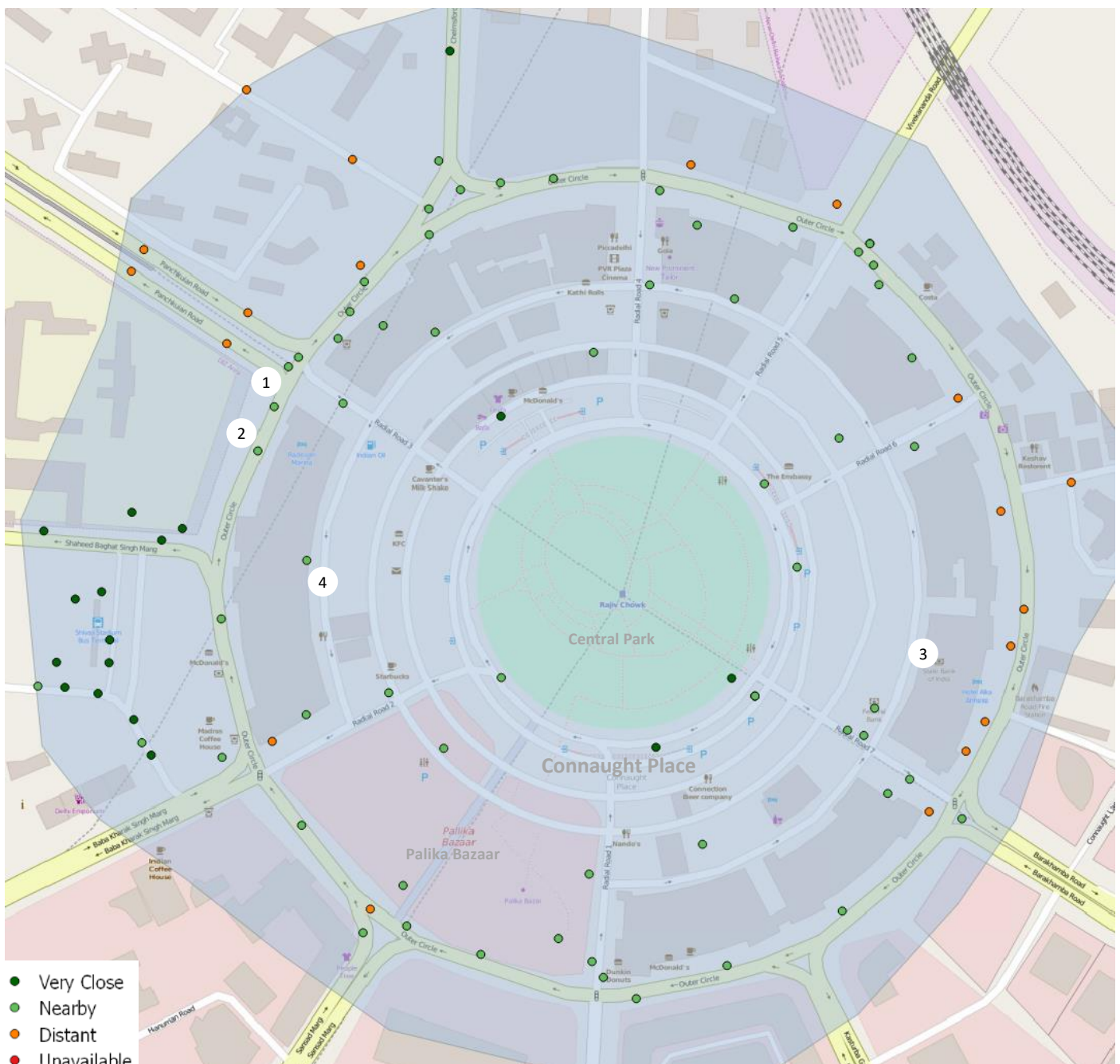


# Public Transport

Public Transport Parameter has been rated 2/3 i.e. Above Average. The Rajiv Chowk metro station has eight entry/exits towards the Inner Circle thereby offering very easy access. The Middle Circle does not have any direct entry/exit from the metro station but the entire circumference is within comfortable walking distance of the Inner Circle entry/exits. The Outer Circle is also within a 10 minute walk of the metro entry/exits. Also, the road is well served by bus service and bus stops are located at almost every radial intersection. However, some parts do not have a bus stop. Throughout the area no designated auto

or cycle rickshaw stands exist. There is sufficient parking space provided for private vehicles along all three circles.

Some of the parking space should be developed as designated stands for autos/taxis and cycle rickshaws. Stands should also be created outside entry/exit points and along bus stops. Certain areas of the Middle Circle having restaurants and hence more activity, can be defined as Pedestrian/NMV zones as well. A Bicycle Rental System should be introduced integrated with the Para-transit nodes and Hawker Zones.



Rating of Public Transport



Cycle rickshaws are seen parked along the radial intersections. No proper stand exists for them currently. A para-transit stand should be created at intersections for all the various modes – autos/taxis/cycle-rickshaws. This should be well lit and designed with space for hawkers catering to the needs of the drivers and other floating population.



Para-transit facilities are available outside the entry gates of many building complexes. However, in the absence of proper space, the pavement is used for parking. As a result, the pedestrians are forced to walk on the vehicular carriageway. Proper stands should be created with the vehicular movement defined in a manner least disruptive to pedestrian movement and safety.



The Middle Circle has been designated as a 'No Stopping, No Parking' zone. However, vehicles are parked not only on the road but also the pavement. Strict enforcement of laws is needed. The public right of way needs to be reclaimed. The parking spaces available in the Inner Circle and Palika Parking should only be used.



The plazas connecting the Outer and Middle Circle together is being used for vehicular parking in some areas. While there are food stalls and restaurants abutting this plaza, it is still being used for vehicular parking instead of a public space. The parking, if needed, should be restricted to a few locations such that the vehicular movement is towards the Outer Circle and does not interfere with the pedestrian/NMV zone of the Middle Circle. These should also include a para-transit stand and public facilities.



