

Approaches and Lessons for enhancing walkability in cities: a Landscape Conceptual Solution for Talaat Harb Street, Cairo

By

Mohammad H. Refaat
Ass. Prof
Department of Urban Design
Faculty of Urban & Regional Planning
Cairo University

Nezar A. Kafafy
Lecturer
Department of Urban Design
Faculty of Urban & Regional Planning
Cairo University

Abstract:

Walkability is a measure of how friendly an area is to walking. Walkability has many health, environmental, and economic benefits. Factors influencing walkability include the presence or absence and quality of footpaths, sidewalks or other pedestrian right-of-ways, traffic and road conditions, land use patterns, building accessibility, and safety, among others. Increased walkability has proven to have many other individual and community health benefits, such as opportunities for increased social interaction, an increase in the average number of friends and associates where people live, reduced crime (with more people walking and watching over neighbourhoods, open space and main streets), increased sense of pride, and increased volunteerism. One of most important benefits of walkability is the decrease of the automobile footprint in the community. Carbon emissions can be reduced if more people choose to walk rather than drive. Walkability has also been found to have many economic benefits, including accessibility, cost savings both to individuals and to the public, increased efficiency of land use, increased liveability, economic benefits from improved public health, and economic development, among others.

In this research we shall deal with the various concepts and theories of the walkability phenomena. In the second part of the research we shall demonstrate the various successful examples worldwide in transforming a high density street within the city to a walkable street. In the final part of the research we shall concentrate on Talaat Harb Street at downtown Cairo, and how it was invaded by street vendors and we shall provide a landscape conceptual solution for tackling this problem.

Key words: walkability, Landscape Conceptual Solution, Talaat Harb Street, Street Vendors.

1. Introduction and definitions

“If we can develop and design streets so that they are wonderful, fulfilling places to be—community-building places, attractive for all people—then we will have successfully designed about one-third of the city directly and will have had an immense impact on the rest.”
Alan Jacobs

According to Iranmanesh (2008) there are different meanings regarding pedestrianisation, one of them is *“the removal of vehicular traffic from city streets”*, which is considered the simplest meaning of it. He also added that in Hong Kong, pedestrianisation is defined by the transport department as *“to restrict vehicle access to a street or area for exclusive use of pedestrians”*.

However, there are several arguments about the removal of vehicular traffic issue that proved to be an inefficient tool, Wooller and others (2012) argue thus the more adequate policies concentrated on the enhancement of walkability along the city through Shared spaces that are gaining acceptance within the urban planning field. In addition, they mentioned that shared space is aimed at integrating the use of public spaces by removing the traditional segregation of motor vehicles, pedestrians and other road users.

When searching for the world "walkability" lingual meaning, Merriam Webster Learner's Dictionary states that it means *"suitable for walking"*, giving an example of; *a very walkable city [=a city where you can easily walk to different places]*.

Abley & Turner argues that the built environment plays the major role in the creating an adequate status for walking, as they sate: *"...the extent to which the built environment is walking friendly"* (Abley & Turner, 2011)

A more comprehensive definition was produced by the Mid-America Regional Council (MARC) in early 1998, in which they tolerate the condition of the built environment and the resulting feelings that either encourages or discourages walkability, where the definition states:

"Walkability is the quality of walking conditions and the degree to which the built environment encourages walking by providing pedestrians a safe, comfortable, convenient and appealing travel corridor" (MARC,1998).

Elbially (2013) in her thesis showed the different definitions of walkability, she also focused on stating that it is important to define who is the user; where the simplest definition for is driven by, where she states: *"A pedestrian is a person traveling on foot, whether walking or running"*. While the NZ transport agency (2009) which perceives pedestrians as a diverse group of road users, with characteristics reflecting the general population, provides a more detailed and thorough definition, which states:

"A 'pedestrian is a person on foot, or in or on a contrivance equipped with wheels or revolving runners that are [sic] not a vehicle. This can include an able pedestrian, a person pushing a pram, a person on a skateboard, a person in a wheelchair and a number of other users."

According to the above definitions, we may conclude by stating that pedestrians require differing spaces within which to manoeuvre. Wheelchairs, prams, people with ambulant disabilities have different width requirements and this should be considered when designing for pedestrians. Figure (1) shows some of the standard widths needed for different pedestrians.

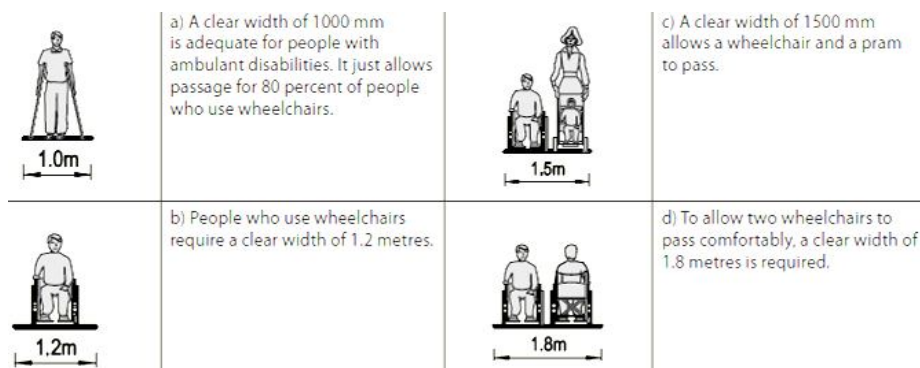


Figure (1) Some of the standard widths needed for different pedestrians

Source: New Zealand Transport Agency (2009) Pedestrian planning and design guide, section 3-3

2. Concepts for improving walkability:

New Zealand Transport Agency in 2009 announced a summary of 4 Concepts for improving the pedestrian environment, which are; living streets, pedestrian precincts, shared zones and sharing the main street. The following section introduces the four concepts in more detail, to understand the different ways and methods for enhancing the walkable environments, in order to practice the knowledge gained on the empirical study by the end of this research.

2.1. Living streets

The concept of 'living streets' recognises that, as a priority, streets should be designed with living and community interaction. While cars are not excluded, they are designed so drivers are aware they are in an area where pedestrian and other users are important. A living street aims to balance the needs of residents, businesses, pedestrians and cyclists with cars, and thereby encourage a better quality of life and a greater range of community and street activity.

Living streets may incorporate:

- Traffic-calming measures
- Places for social activities
- Lighting improvements
- A better interface between street & housing
- Hard and soft landscaping areas
- Children's play areas
- Public art.
- Seating

The living streets concept can be applied in theory to any road (other than a motorway). There is no one solution; instead, the community is involved in identifying problems for which specific solutions are developed.

2.2. Pedestrian precincts

Most pedestrian-only areas are created by restricting traffic access or closing roads to traffic.

There are four types of pedestrian precinct:

- i. Modified street precinct: one block is closed for pedestrian-only use.
- ii. Plaza: several blocks are closed but the cross-streets stay open to all traffic.
- iii. Continuous: several blocks and the cross-streets are closed.
- iv. Displaced: walkways are developed away from the usual roadside footpaths, making use of lanes and alleys.

Pedestrian precincts are most beneficial where there is heavy pedestrian activity, retail or mixed development, a high number of pedestrian/vehicle conflicts, and motor traffic can be accommodated elsewhere.

Access must be maintained at all times for emergency services. Delivery vehicles can be allowed access during the early morning or evening, or be prohibited completely as long as servicing arrangements can be maintained. Public transport may also be permitted as long as vehicles operate slowly within a narrow corridor, although pedestrians may not favour this. Cyclists can usually be permitted as guests in a pedestrian space. Extra parking areas may be needed to replace on-street spaces lost

2.3. Shared zones

A shared zone is a residential or retail street that has been designed to give priority to residents and pedestrians while significantly reducing the dominance of motorised vehicles. In the United Kingdom, shared zones are called home zones and in The Netherlands they are referred to as a "Woonerf". A *woonerf* is often of a higher quality and more expensive than a home zone.

Motorised vehicles, including removal vans, refuse and service vehicles, still have access but must give way to pedestrians; and conversely pedestrians should not hinder vehicles. The route is physically constrained for vehicles by landscaping, structures and tight turning radii, with no delineation between the footpath and roadway. This slows vehicles to very low speeds.

The result is an 'environment of care' where motorised traffic has a specific reason for travelling through the street. This reduces vehicle numbers and means the drivers of the remaining vehicles take more care. Environmental conditions and road safety also improve to the benefit of residents and shoppers, and streets become open spaces for walking, sitting, playing and talking

Shared zones are most suitable for streets and compact areas with a low demand for through traffic movement. Their maximum size is restricted by the need to maintain response times for emergency services and to limit the extent of roadway that must be negotiated at low speeds by motorists accessing their properties. Parking places should be designated. Success requires full and active community participation and consensus. The treatment is more costly to fit to existing roads than to new developments.

2.4. Sharing the main street

The main streets of rural towns, and minor arterial roads in cities that are straddled by strips of retail, commercial and community activities, have conflicting traffic and pedestrian needs that need to be managed. Pedestrian crashes cluster at such locations. The traffic function is impeded by the activities along the frontage – particularly in areas where there are high levels of parking turnover or many parking manoeuvres, turning movements and crossing pedestrians. The activities along the frontage suffer from the impact of traffic noise and air pollution, access to sites and difficulties for pedestrians who want to cross.

Sharing the main street means adapting it – or a centre along a minor arterial road – to improve the safety and the quality of the road environment for all its users.

People using these areas have a range of needs including:

- Pedestrians need to be able to cross safely and conveniently
- Visitors need to be able to park
- Motorists and cyclists need to be able to move safely through the centre
- Businesses need to attract customers
- Transport operators need space for loading and unloading
- People with impairments need to be able to use the area safely and comfortably
- The community needs an attractive and safe centre to visit and to meet
- Public authorities need to keep costs down.

Main street adaptations are recommended for strip shopping centres alongside existing roads. With respect to pedestrian safety they represent better value for money than residential area traffic calming.

3. Walkable community's key attributes & factors of impact

3.1. Key attributes of walkable community

Gardner et al (1996) quoted in Elbially (2013) refer to the 5C's as the key attributes of an environment required to encourage walking, which stands for;

- **Connected:** connected networks for good access to key destinations.
- **Convenient:** is walking more efficient in matters of time and money.
- **Comfortable:** related to how much does local facilities meet design standards.
- **Convivial:** connects two qualities "liveable and together".
- **Conspicuous:** are walking routes clearly sign posted and well furnished.

According to the transport for London Agency, Elbially (2013) claims that the 5Cs layout is frequently used to classify and prioritize pedestrians ' needs.

A more thorough key attributes of an environment required to encourage walking was introduced by MARC(1998) which include:

- **Sociability:** Sidewalks (pavements) should provide for a variety of uses and activities characteristics of the diverse urban scene, in order to create a sense of hospitality and suitability for individual and community interactions.
- **Comfort:** Unobstructed passage on the sidewalk and at corners with secure and negotiable paving materials for sidewalks and crosswalks. Signals timed to enable safe and quick crossings.
- **Attractiveness:** Clean, efficient and well-maintained surroundings, with adjacent storefronts and activities that provide sidewalk interest.
- **Coherence:** A clear, understandable and organized sidewalk, street and land-use system consistent with the scale and function of the surrounding urban context. The sidewalk and street system should link points of interest and activity, provide clean lines of sight and travel, and include simple instructive signage.
- **Efficiency:** Simplicity and cost-effectiveness in design and function. Minimum delay along a walking route.
- **Safety:** Pedestrian protection from automobiles and bicycles. Adequate time to cross intersections without interference. Physical separation from fast moving cars. Signalization protection when crossing intersections.
- **Accessibility:** The opportunity for all individuals to utilize the pedestrian environment as fully as possible.
- **Continuity:** A pattern of design and usage that unifies the pedestrian system.
- **Equilibrium:** A balance among transportation modes that will accommodate and encourage pedestrian participation.

3.2. Factors affecting walkability:

There is no doubt that there are many factors influencing walkability, where these factors differs from one context to another, these factors include – but are not limited to: Location of facilities, Adequacy of walkways, Connectivity, Street orientation, Density, Street speeds, Aesthetics, Land use, Affordability, Neighbourhood schools and activities, weather measurements (temperatures and humidity levels)...etc.

Within the Egyptian context there is an essential factor that influences walkability especially in main routes used by pedestrians in cities which is the street vendors, whom Kafafy (2014) wonders in his paper title whether they are victims or villains. This issue will be tackled in the empirical study in the following sections of this research.

3.3. Landscape role in enhancing Walkability

Well-designed landscaping contributes to the sense of security and the satisfaction of the community's members. Various activities take place in open space, but require different design considerations. Places for groups to gather require appropriate furniture and are often enhanced by the availability of food and beverages. Making benefit of the Egyptian milder climates encourages making more use of outdoor spaces for activities.

Figure (2) shows the main 3 street sectors influenced by landscaping, the first is the building itself (*context*) which is not a part of the landscaping process at this stage of study, however the hanged flower boxes, green roofs and vertical gardens are all factors that enhances the overall perceived image of the street. The second sector is the *street-side* which is the main section that habitats the landscaping and the different pedestrian activities, it is the stage on which most of the walkability through the built environment experience occurs, among the important factors to be in consideration when dealing with this sector comes the street-side width, in which referring to different users' equipment are important, as previously mentioned in figure (1), the width of the street-side (pavement) at stops and stations, space for the different street furniture such as passenger shelters, seats, trees, lighting, kiosks. The third sector is the travelled-way (roadway) where the conflicts between pedestrians and the running traffic flow occurs, among the important factors to be in consideration when dealing with this sector comes pedestrian access to median, clear and safe intersections and crossings, appropriate median width to accommodate running ways and additional width for transit facilities versus pedestrian crossing distance.

Separating and connecting the vehicular route and the pedestrian crossings, beside facilitating and improving the walking experience are the most crucial aims in using landscape in enhancing walkability.

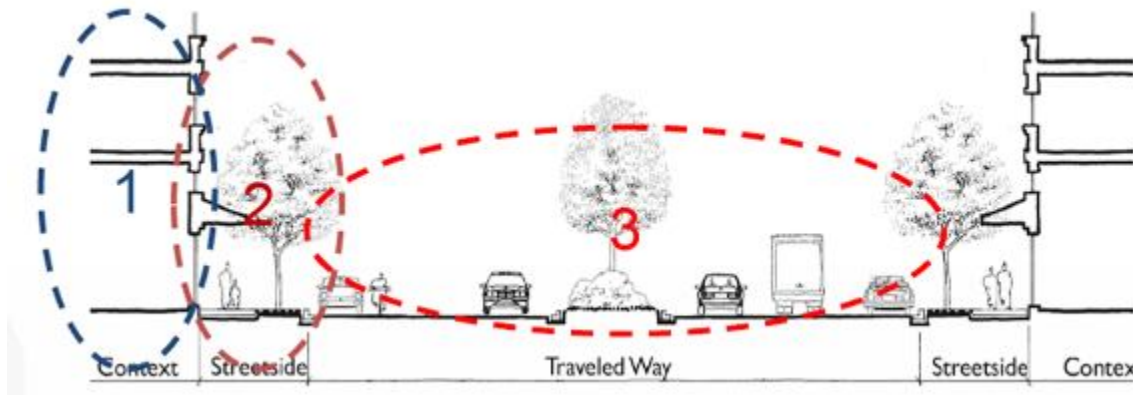


Figure (2) Street sectors influenced by landscaping

4. Case studies for enhancing walkability in cities:

4.1. Copenhagen

Lars Gemzøe – who co-authored the *Public Life - Public Space, Copenhagen* book in 1996 with Jan Gehl - summed up the most important changes in Copenhagen in: (figure 3)

- Since 1962 people in Copenhagen has got six times more square meters for pedestrian use. By 1996 a total of 96.000 car free square meters are available. Practically all of the pedestrian streets were made between 1962 and 1973. After that it has been the development of squares that has dominated.
- 40% of the square meters of pedestrian areas are streets for walking and
- 60% are squares for resting and enjoying life.
- Walking in the city has been remarkable stable since the first pedestrian streets were introduced as they have been full to capacity on any good summer day since then.
- What has changed most dramatically is the development of staying activities. Staying in the Inner City has increased 3-4 times since the first study in 1968. The number of inhabitants in the Greater Copenhagen Area (1,3 million) has been stable but the number of people spending time, staying in the public spaces, has been constantly growing.
- An important aspect of the development in Copenhagen is the gradual, slow process:
 - Car drivers and bicyclists have had time to change traffic habits.
 - People on foot have had time to find out ways of using the new spaces.
 - Politicians have had time to think and to make decisions based on the success with the first streets.

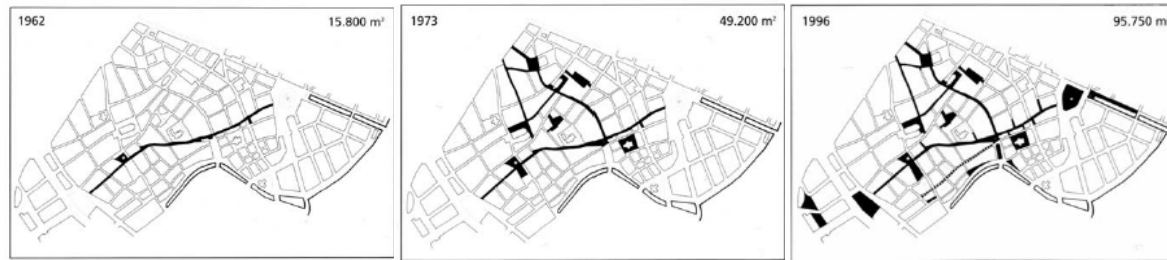


Figure (3) The development of pedestrian streets and squares in Copenhagen 1962 - 1996

Source: Gemzøe (n.d.)

Gemzøe summarises the 35 years of research by saying:

"For years we have known that more roads equals [sic] more traffic. Now we also know that more space for people of high quality and on the right spot equals more public life."

4.2. The Taqsim Square and İstiklal Street case study

The Street is one of the most famous avenues in Istanbul, Turkey, visited by nearly 3 million people in a single day over the course of weekends. Located in the historic Beyoğlu (Pera) district, it is an elegant pedestrian street, 1.4 km long, which houses exquisite boutiques, music stores, bookstores, art galleries, cinemas, theatres, libraries, cafés, pubs, night clubs with live music, historical patisseries and restaurants.

The avenue, surrounded by late Ottoman era buildings (mostly from the 19th and early 20th centuries); as well as a few Art Deco style buildings from the early years of the Turkish Republic, and a number of more recent examples of modern architecture; starts from the medieval Genoese neighbourhood around Galata Tower and ultimately leads up to Taksim Square. Galatasaray Square is located at approximately the center of the avenue and is home to one of the finest educational institutions established in Turkey at the time of the Ottoman Empire; originally known as the *Galata Sarayı Enderun-u Hümayunu (Galata Palace Imperial School)* and today known as Galatasaray High School (Galatasaray Lisesi).

During the Ottoman period, the avenue was called *Cadde-i Kebir (Grand Avenue)* and was a popular spot for Ottoman intellectuals, also becoming a center for European foreigners and the local Italian and French Levantines who referred to it as *Grande Rue de Péra*. When 19th-century travellers referred to Constantinople (today, Istanbul) as the *Paris of the East*, they were mentioning the Grande Rue de Péra (İstiklal Caddesi) and its half-European, half-Asian culture. With the declaration of the Republic on October 29, 1923, the avenue's name was changed to *İstiklal (Independence)* for commemorating the triumph at the Turkish War of Independence.

In September 1955, during the anti-Greek Istanbul Riots, the Avenue was pillaged in one night, while it was covered with pieces of glass, clothes, smashed white goods, rolled down and burned automobiles and other goods, all belonging to the wrecked shops.. However, during the late 1980s and early 1990s, a massive restoration process took place (master-planned and executed by the Municipality; including the restoration of the historic buildings, new pavements for full pedestrianisation, and the reinstallation of the historic trams), bringing the avenue its old charm and popularity. İstiklal Avenue once again became the centre of fine arts and leisure in Istanbul, with real estate prices skyrocketing as a result. Numerous new art galleries, bookstores, cafés, pubs, restaurants, shops and hotels were opened. The venues around the avenue became the host of many

international art festivals, such as the annual Istanbul Film Festival. İstiklal Avenue is also a popular venue for all sorts of protests, marches, parades and gatherings in the city, figure (4).



Figure (4) İstiklal Street, during day and night, Istanbul, Turkey

Source: by the authors

5. Walkability Plans & Pedestrian Planning Process:

This section is compiled using the following references: Abley and Turner, 2011; Viola et al., 2010; New Zealand Transport Agency, 2009; RTA, 2002; MARC, 1998.

There are several approaches in the literature regarding the Pedestrian Planning Process & Community walking plans that differ from one country and context to another. However, most of these approaches rotate around the same concepts and adopt nearly similar methodologies that revolve around the following steps:

- Define the scope, the area and who to involve
- Research the area and its issues
- Develop and assess solutions
- Prioritise actions
- Implement
- Review

The essential step in the pedestrian planning process is to have clear objectives that can be achieved within a reasonable timescale and to be monitored through measurable criteria. Objectives should always support the community's walkability related issues, the guiding objectives include – but are not limited to-:

- To facilitate improvements in level of pedestrian access and priority, particularly in areas of pedestrian concentration.

- To reduce pedestrian access severance and enhance safe and convenient crossing opportunities on major roads.
- To identify and resolve pedestrian crash clusters.
- To facilitate improvements in the level of personal mobility and safety for pedestrians with disabilities and older persons through the provision of pedestrian infrastructure and facilities which cater to the needs of all pedestrians.
- To provide links with other transport services to achieve an integrated land use and transport network of facilities that comply with best technical standards.
- To ensure pedestrian facilities are employed in a consistent and appropriate manner.
- To link existing vulnerable road users plans in a co-ordinated manner (e.g. Bike plans, maintenance programs, accessible public transport, etc).
- To ensure that pedestrian facilities remain appropriate and relevant to the surrounding land use and pedestrian user groups.
- To accommodate special event needs of pedestrians.
- To improve accessibility for particular types of pedestrian and to meet obligations of the disabled users.
- To enhance road crossing opportunities and to provide a consistent level of walking environment

One of the good practices is the Pedestrian Access and Mobility Plan (PAMP) in NSW, Australia, where it was developed a decade ago in to support walkable communities, through a three stage process, a) objectives, b)preparation and c) implementation, the following part of this section drop the shed on the PAMP stages in more detail.

A PAMP is a comprehensive strategic and action plan to develop pedestrian policies and build pedestrian facilities. PAMPs aim to co-ordinate investment in safe, convenient and connected pedestrian routes. A PAMP provides a framework for developing pedestrian routes or areas identified by the community as important for enhanced, sustainable safety, convenience and mobility. PAMPs are developed through partnerships between State and Local Governments, developers and other stakeholders.

According to RTA (2002), the typical suggested contents of a PAMP report usually consists: figure (4).

1 Introduction that covers: Background, Study Objectives, Methodology and Structure of report

2 Study Area that covers: Scoping study (selection of the study area), Study Area

3 Research, Review and Data Collection that covers: Literature Review, Traffic and Pedestrian Data, Pedestrian Crash Data, Opportunities and Constraints (crossings, crash clusters, new links, etc) and Design Standards

4 Characteristics of Local Government Area that covers: Population and Land use, Road Hierarchy, Public Transport and Future Pedestrian Needs

5 *Public Consultation* that covers: Sub-section titles should reflect the different groups and consulted and different methods.

6 *PAMP Routes* that covers: Route Selection, Route Prioritisation Methodology and Opportunities and Constraints

7 *Audits* that covers: Route Audit Process, Cost Estimate for Typical Items, Work Prioritisation Methodology and Physical Works Schedule

8 *Funding Sources and Implementation of PAMP*

9 *Monitoring Program*

10 *Recommendations for Future Studies*

11 *Conclusions and Recommendations*

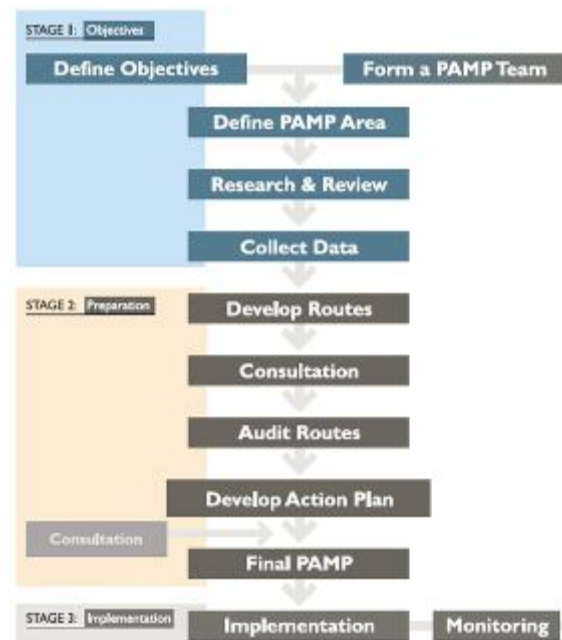


Figure (5) Flow chart of the PAMP stages

6. Knowing what kind of streets we want, the question is what kind of streets we have? (Assessing Walkability within the Egyptian context)

Leather et al (2011) states according to (WHO 2009) that almost half of the world's annual road traffic fatalities of approximately 1.3 million people are pedestrians, cyclists, and motorcyclists, and more than 90% occur in developing countries

Gandhi and Trivedi (2007, p.p 413-414) argue that pedestrian safety is an important problem of a global dimension. In low-income countries, a large majority of deaths are not the vehicle occupants but the vulnerable road users (VRUs), consisting of pedestrians, bicyclists, two wheelers, and other small vehicles. While In high-income countries, pedestrian fatalities are relatively lower but still represent large societal and economic costs to the nations. They add that according to the World Bank website, pedestrians account for 65% of the fatalities out of the 1.17 million traffic related deaths around the world, with 35% of these being children.

In Egypt the case is not better than any other developing country, and we can summaries the contemporary situation in its streets in the following points:

- Street vendors invasion, where they do not only occupy the street-side (pavement) but in many cases colonize a lane or more of the travelling way of the street causing a huge congestion in traffic and forcing pedestrians to walk in the travelling way with cars which increases their vulnerability risking their lives and increases the accidents rates dramatically, beside hindering the traffic and causing prolonged traffic jams.
- Inadequate infra-structure for both streets and sidewalks, where both vehicular users and pedestrians are neither safe nor satisfied with, which discourages pedestrians to choose walking as a usable alternative, where sidewalks are not levelled, with broken pavement, that

causes many injuries for pedestrians who prefer to walk in the travelling way –which is better levelled- not minding the fatality dangers they are facing.

- Inadequate facilities for public transport, which is considered one of the pivotal problems within the Egyptian context, as the levels of public transportation are depressing for most of the travellers, where it's inhumanly very congested, slow, lacking safety measurements, do not cover most of the regions within the city.
- Egyptian urban settlements and especially Greater Cairo area are characterised by high air pollution levels, which dismays pedestrian users.

With the rapid increase in the number of vehicles in the country, the number of accidents and fatalities is likely to increase before they can be reduced. Furthermore, the problems faced by developing countries such as Egypt are often different from those faced by developed countries; where in Egypt for example, there are a large number of two wheelers, three wheelers, bicyclists, and pedestrians sharing the same road space with cars, buses, and trucks. Hence, it is needed to be in consideration that the solutions for developed countries may not all be directly applicable for the case of Egypt. In fact, improving infrastructure design and developing appropriate infrastructure-based solutions, are among the first steps for the Egyptian context, besides adopting some out-of-the box ideas, as will be seen in the empirical section of this research.

7. A Recommended conceptual Landscape solutions to Talaat Harb Street, Cairo

7.1. The Street Historic Evolution

In his desire to display a modern city worthy of comparison with the grand European Capital, Ismail Pasha commissioned some of the most notable architects and engineers of his time including Baron George-Eugene Haussmann who had worked on the renovation of Paris in the mid 19th century. The Paris scheme was implanted as downtown Cairo, creating a dramatically new public center for the city that later echoed in the satellite cities built at the turn of the 20th century. (El Shakry 2006; Raymond 2001) Baron Haussmann's design for "Second Empire Paris" signaled a pivotal transition of the public sphere around the world and has since been the subject of much debate. (Low 2006) The literature on Hausmann's scheme addresses the capitalist intentions of the layout, but also acknowledges its value as a modern public setting where all can participate; integrating private and public governance. (AlSayyad 2006; Caldeira 2000) Downtown Cairo still provides some of the most accessible public space in the city that allows for the integration of public pedestrian infrastructure alongside private enterprise.

Although downtown Cairo (also called 'Khedeival Cairo') provides inclusive public space, the model was replicated with very little reference to the local environment. The similarity of the boulevards and many of the buildings to downtown Paris earned Cairo the nicknamed 'Paris on the Nile'. The Haussmann designed downtown houses some of Cairo's most ornate 19th and early 20th century architecture. It also houses the city's best kept pedestrian network. Since the 1990's there has been significant movement to refurbish the district that has fallen victim to urban decay mostly due to rent control laws. Over the past decade, downtown Cairo has seen improvement to its public arena. Sidewalks are being maintained, zebra crossings have been introduced, and adherence to traffic lights is being enforced. More significantly two streets have been closed to traffic and paved as pedestrian only. (El Kadi et al. 2006)

As for our case study street, originally it was named 'Soliman Pasha Street' after Suleiman Pasha, Egypt's French-born General under Muhammad Ali. The street was renamed in 1954 after Talaat Harb, the leading Egyptian economist of the early 1900s. The street received the 'Talaat Harb Street' name during a sweeping effort by Egypt's new president, Gamal Abdel Nasser, to rid the city of all reminders of the Muhammad Ali dynasty and British occupation era. It is the historic architecture lining Talaat Harb Street that reminds visitors of its stylistic and eventful past. Until its name change in 1954, this avenue was named 'Soliman Pasha Street' and was a center for activity and social interaction among Cairo's upper and European classes. Although a remnant of its former 'Paris on the Nile' 19th century grace, the Midan Talaat, or Talaat Square, at the street's intersection with Qasr el-Nil Street is circled with buildings having the strong elegance of French neoclassical architecture from the Soliman Pasha era, and were once the locations of some of Cairo's most popular and successful shops and services. (El Kadi et al. 2006) Despite the government attempts to mask colonial Egypt's history, done in the 1950s and 1960s, the structural design of the upper building facades on Talaat Harb Street is a reminder of a multi-colonial past. Various types of architecture representing different eras of Egyptian history are displayed on the floors above the new roughly redesigned yet inviting store facades on street level. Most of these buildings appear to be left over from the days of Khedive Ismail and his goal to create a new European inspired quarter in Cairo during the second half of the 19th century. He stressed on urban planning for the first time in Cairo. To include broad, linear gridded streets, open spaces and parks, geometric balance and harmony, and then modern European architectural styles. Yet the once grand appearance of these buildings has been lost to the clinging dust, battered shutters and general lack of outward upkeep. Interspersed between these sad structures are their modern counterparts, which appear significantly more aged than the actual date of the structure would suggest due to their hasty and incomplete construction. Identical glossy storefronts strung together along the street level provide a degree of continuity and collectively sacrifice the history disappearing above them for an eager pursuit of western culture and commerce. (AlSayyad 2006; Caldeira 2000). In our modern days the street resembles a healthy vein, pumping full of life toward the heart of the city, Tahrir Square. Within this dynamic market, a few establishments exist which seem to have secured a permanent establishment and provide the street with a degree of stability. These companies include, among others, Misr Travel, EgyptAir, and Banque Misr — which are the ones established by Talaat Harb during his campaign to bolster the Egyptian economy in the 1920s and 1930s. It seems appropriate for these companies to still provide the economic foundation on Talaat Harb Street, acting as a living testament to the founder—Talaat Harb, as his ideas live on in the remaining buildings on his namesake street. (El Shakry 2006; Raymond 2001) Though the active splendor that once characterized the street has passed, Talaat Harb Street is an honest reflection of the current reality of Egypt. It has a blend of Western popular culture and Arab tradition, being enthusiastically consumed by people in an evolving Islamic society. The businesses are trying to develop economic strength in the modern world's marketing aesthetics, while inadvertently ignoring their own rich cultural heritage here in the Talaat Harb Street backdrop of a Euro-Islamic Ottoman era balance and prosperity.



Figure (6) Showing the Talaat Harb street historic evolution
Source: (El Kadi et al. 2006)

7.2. The Street Status Today

Before the 25 of January 2011 revolution, the phenomenon of the street vendors was limited in downtown Cairo, and their location was well known and specific. Today, after the 25 of January revolution, the street landscape is totally changed. From what we have described earlier to the invasion of clusters of street vendors, some of whom sat on the pavement, others standing behind a desk displaying their goods. Not only occupying the side walks but also, occupying a strip adjacent to the side walk almost invading one of the car lines in the street. The original street design carrying capacity was designed to allow four car lanes, after this invasion only one lane is available for cars in the street, especially in the junction between Abd Elkhalek Sarwat Street and Talaat Harb Square. Also, some were present at the beginning of Talaat Harb Street in terms of Tahrir Square, and others were present at the intersection of streets Sharif with Kasr El-Nil. It all started suddenly from Tahrir square and with the repetition of the demonstrations (Miloneyyat) turning the whole street to a large randomized market. Cairo's downtown Talat Harb Street and other streets have seen an explosion in the number of street vendors since the 25 January Revolution, sometimes blocking the traffic and playing cat-and-mouse with the police. Every time the police remove the vendors from the streets they seem to manage to come back again. (Helmy, H. 2011) At first, the vendors used to stay on the pavements, but now they are on the streets as well, with the result that it is difficult for cars to pass. But every time the police move the vendors away, they later come right back again.

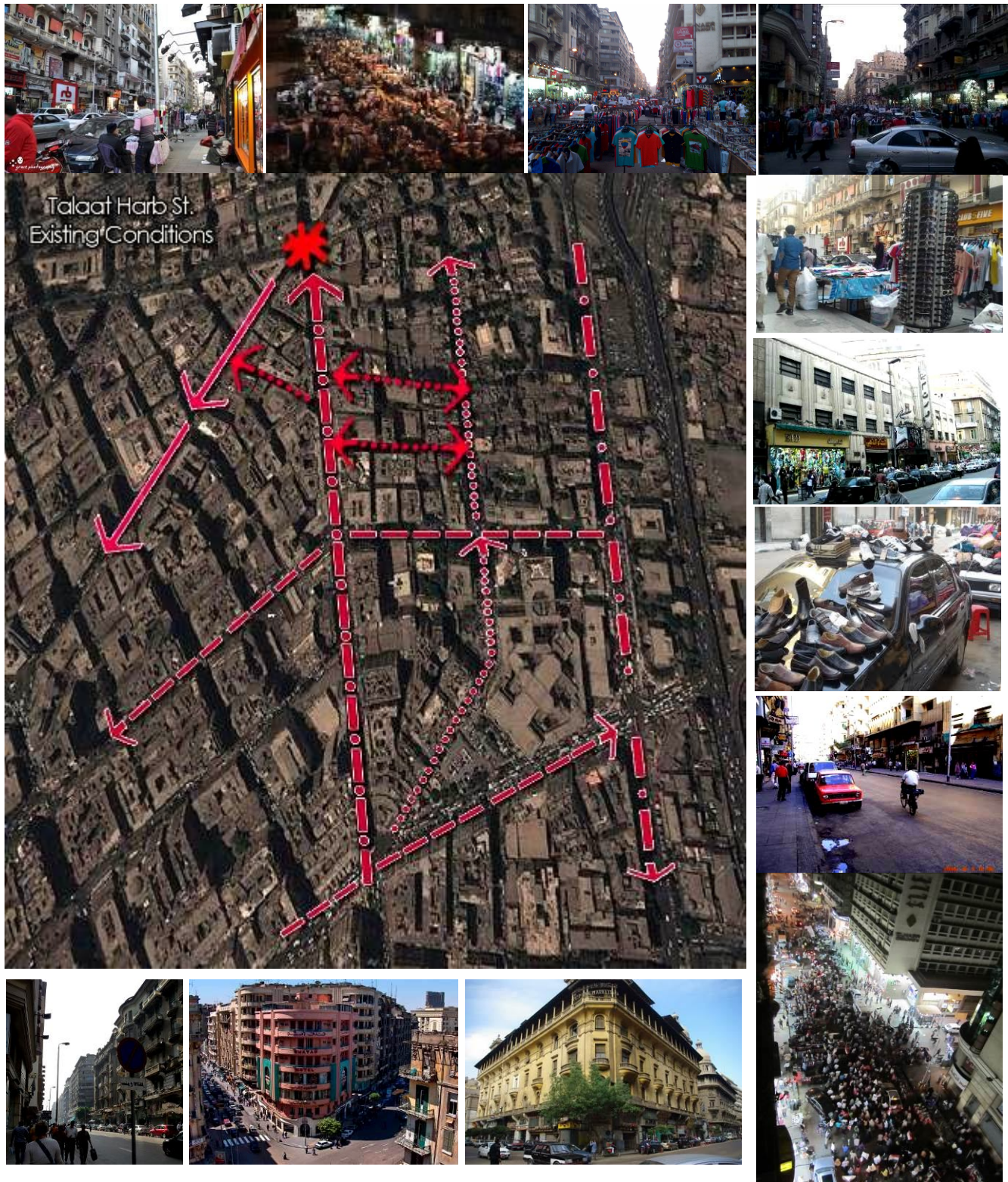


Figure (7) Talat Harb Street existing conditions
Source: by the authors

Some of them even take electricity from the street lamps to light their stalls so that they can stay there all night. (Figure 8)



Figure (8) Showing the vendor's invasion to the sidewalks as well as the road itself

Source: by the authors

According to (El-kady, Abd elwahab 2013)

" With the passage of time and entrenched lawlessness that prevailed in Egypt , the phenomenon of street vendors has become more prevalent , instead of some Clothing Retailers who were occupying some Street corners at Talaat Harb , , the whole Talaat Harb Street became a gathering place for street vendors who sell clothes, shoes, accessories, and with the passage of time occupied the sidewalks then vendors occupied parts of the campus of the road until it became impossible to park a car in the street , or the passage of two adjacent cars at the same time , and it at the night of Eid al-Fitr the street is completely blocked and no car traffic is allowed " .

The traffic liquidity and cars paths problem is not only the main problem the street vendors are causing. Street vendors occupy main commercial streets in front of the legal shops that are committed to the laws and regulations and pay taxes imposed by the state, which is reflected on its high prices compared to those of the street vendors. This causes a lot of problems due to conflict may lead to clashes or the surrender of shops owners. Street vendors show their products under umbrellas to protect them from the sun or rain in very simple systems but they are not acceptable to viewers in the street or people in the opposite malls. Those vendors have no legal obligations both in terms of rents or legal obligations; they don't have any licenses or approval from the state for the exercise of this profession, which is troublesome in the relationship between these vendors and state.

7.3. The Government Approach in Tackling Talaat Harb Street Problems

The worsening crisis street vendors in the city centre and clogging most of the main streets, pushing devices Cairo governorate to wage crackdowns in the past few days to remove the occupancy posed by street vendors, but it was necessary to provide a place for more than 7,000 vendors Jaül in Cairo Governorate, according to government statistics. In a press statement , Maj. Gen. Saif al-Islam , vice-governor for the western region for the province of Cairo , that *"the province to have a full concept to soothe those street vendors in the markets in a civilized and crying have been created for this purpose , in order to preserve the social dimension and the sources of income for these citizens"*. (El-Kouny, N. 2012)

The government insists that there is a plan for the transfer of street vendors from crowded areas and central areas of the country to the areas of their own, where it will open a range of sites and pedicles

in front of street vendors to display their goods. Pointing out that it will be confiscated goods, which violates the owner's instructions or places assigned to them, stressing that the government would not allow the presence of random vendors outside these markets. (El-Kouny, N. 2012)

In an interview with several of the street vendors done by El-Kouny 2012, she came out with the conclusion that officials still think the same way that they were thinking before the revolution, looking for painkillers just no one thinks of the street vendors seriously, and no one of them understand that they are human beings and have families, that require the basic necessities of life. Moving away from down town Cairo is not an acceptable idea by the vendors as well as working on week ends only. The vendors have reservations on moving away from down town as she mentioned if they were given places there, would they be able to attract the customers? Downtown Cairo is full of people, which is why they moved here in the first place.

7.4. Conceptual Landscape Solutions to Talaat Harb Street

The government main approach is to find another place for the vendors and move them to, a solution which is not accepted by all of them and keeps the existence of the problem.

From the historical study of the street and the on-going observation of its daily status, we may produce the following landscape solution based on scheming a Pedestrian Access and Mobility Plan (PAMP) and adopting the *Pedestrian precinct* concept: (Figure 9)

1. **Street Zoning and Subdivision:** The street shall be divided into two segments
Segment A: From 26 July Street till Abd Elkhalek Sarwat Street Junction.
Segment B: From Abd Elkhalek Sarwat Street Junction to Talaat Harb Square.
2. **Transferring Segment B to a Pedestrian Free Zone only at the Week ends and daily from 8 to mid night :**
(Friday and Saturday) while keeping Segment A for cars and Vehicle traffic all day all week.
3. **Providing a different parallel vehicle route while transforming Segment B to a pedestrian free zone:** This done by using Champilon Street as an alternative route for the pedestrian free zone segment B, in addition to a change in direction at Kasr El-Nil Street junction with Talaat Harb Square. (Figure 10).
4. **Solving car-pedestrian intersection:** through modifying the areas located for each activity.
5. **Keeping the visual architecture character while adapting the land use:** This is done by restoring the architecture heritage by locating definite places for street vendors.

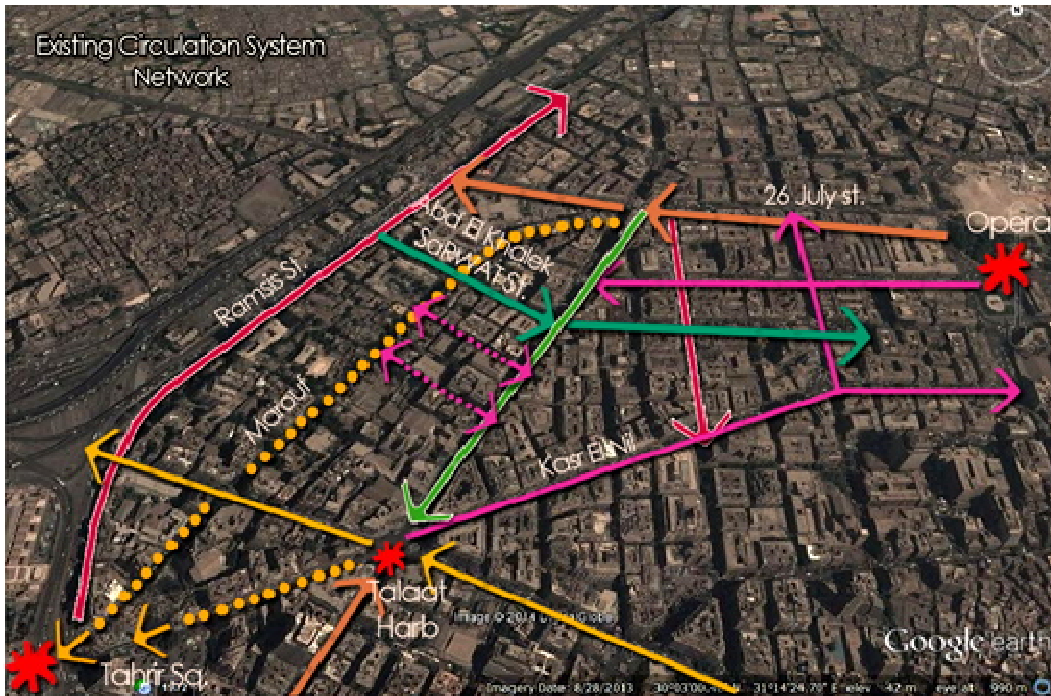


Figure (9) The existing circulation conditions network

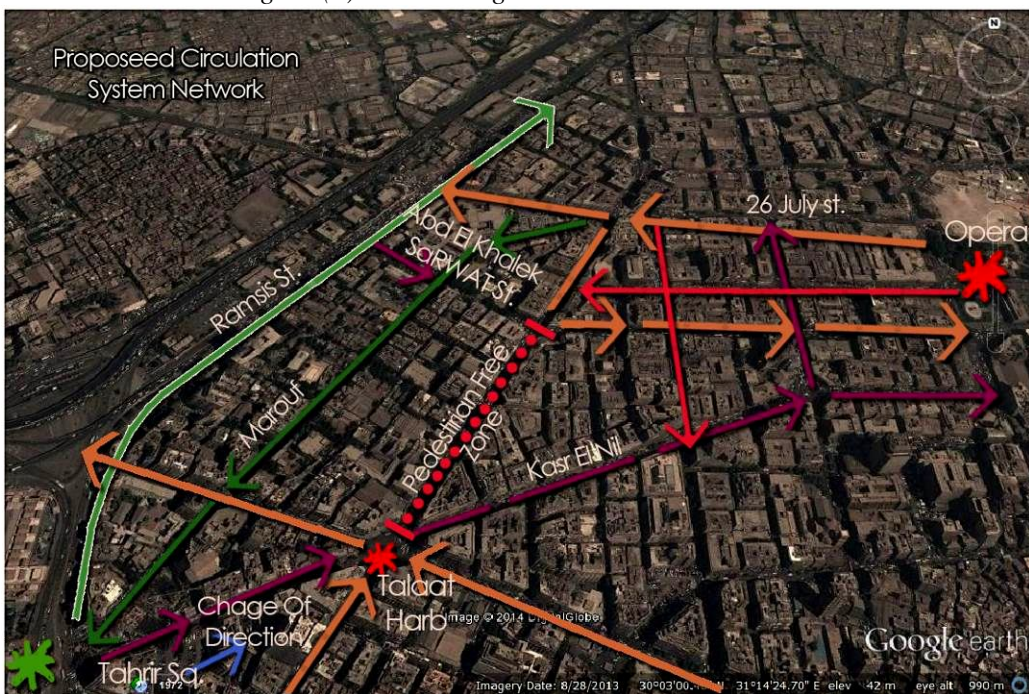


Figure (10) Proposed Circulation system network (Pedestrian Access and Mobility Plan (PAMP))

6. Public Services are not neglected in distributing the land uses:

The existence of public services in the walkable areas is very important; this will be done by using the already existed services at the restaurants and food corners which exist at the street.

7. Enforcement of laws and legislations:

This should be done in order to make sure that the street vendors would obey the system which prevents them from coming to the street on week days and accept that their time is at the week end in a formal way.

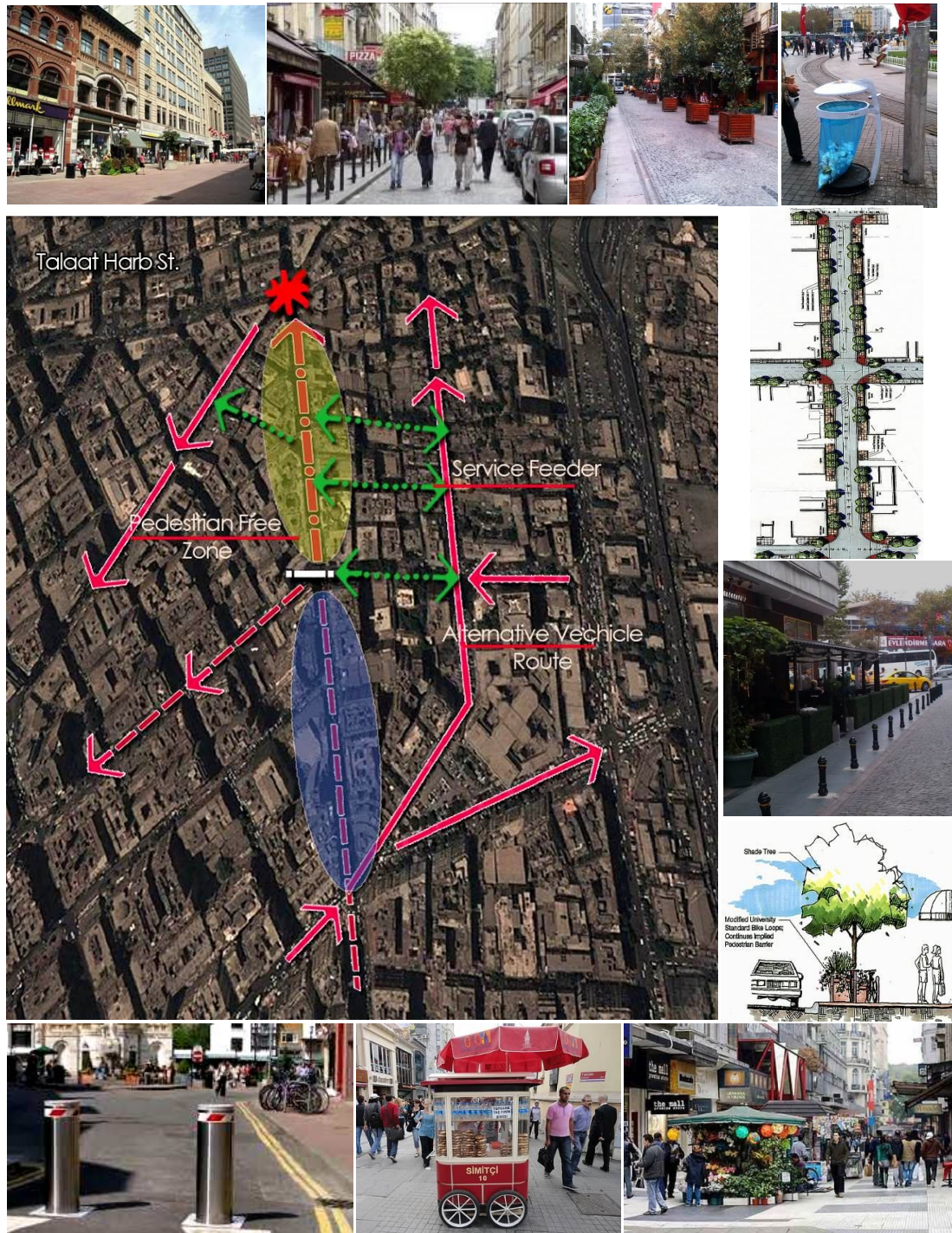


Figure (11) Proposed Pedestrian Access and Mobility Landscape Conceptual Plan

8. Conclusion

There is an insisting need for a Transport Strategy that clarifies the government's supporting of pedestrian zones, and to have an affordable, integrated, safe, responsive and sustainable transport system. Broader objectives of such a strategy aim to enhance economic, social and environmental well-being through:

- Improving access and mobility, including walking and cycling
- Protecting and promoting public health
- Ensuring environmental sustainability
- Assisting safety and personal security
- Assisting economic development.

The key principles for achieving these objectives include but are not limited to:

- Creating an integrated mix of transport modes
- Taking a long-term sustainable approach
- Ensuring high standards of health, safety and security
- Responding to the diverse needs of transport users.
- Creating out-of-the box solutions to the street vendors' problems.
- Using a different parallel path for cars within different time zones.
- Solving car –pedestrian intersection through definite junctions.
- Keeping the visual architecture character while adapting the land use.
- Enforcement of laws and legislations.
- Public Services are not neglected in distributing the land uses.
- Services circulation has the same pedestrian route but different time zone.

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