
7. Development Program for Yonsei-ro Transit Mall

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Policy Area: Transportation

Background to the Program

In the past, South Korea pursued industrialization and urbanization for economic growth and built a transportation system that was automobile-oriented. However, urbanization brought with it some severe traffic congestion and other social costs as side effects, such as increased travel time, air pollution, higher accident rates, and resentment. It has in recent years become very important to shift from an automobile-centered urban paradigm to a perspective that prioritizes pedestrian rights and road use efficiency. In 2006, the Ministry of Land, Transport & Maritime Affairs announced the First Basic Plan for Public Transport and opened discussions on the introduction of a “transit mall” as part of the measures to strengthen transportation demand management in congested areas of the city. The Second Basic Plan in 2011 proposed expansion of the transit mall.

In line with this trend, the City of Seoul modified the public transit system and worked to build a pedestrian-friendly climate putting people and public transit first, thereby creating a sustainable urban environment. By June 2012, the city came up with a new vision called, “Walk-Friendly Seoul,” with a transit mall suiting the transportation policies of Seoul, but because it had never been tried in the city, various research institutes, including The Seoul Institute, decided to review the idea through academic studies. Outside Korea, transit malls have been utilized since the 1960s and 1970s in European and North American cities where automobile transportation was concentrated. In Korea, the first location of a transit mall was on Jungang Road in Daegu in December 2009. Recently, Busan also announced plans to create a transit mall on Dongcheon Road.

In 2012, the City of Seoul developed its Seoul Comprehensive Plan for Transit Malls and selected 10 candidate areas, carefully reviewing land use, floating population, public transit access, number of public transit users, characteristics of the business districts, and symbolic significance. The transit mall would potentially be resisted by local residents, business owners, and pedestrians as it would limit the number of vehicles in the area, and many different elements therefore had to be carefully analyzed. Of the 10 candidate locations, the Yonsei-ro district was chosen as Seoul's pilot program in July 2012. The city actively communicated with interested parties to address any potential complaints and conflicts: community meetings were hosted, discussions were held to revitalize business districts in Shinchon, and the Seoul Metropolitan Police Agency conducted a deliberation. A year and a half later (in January 2014), the transit mall in Yonsei-ro was finally opened.

Concept of “Transit Mall” & Examples

Concept & Purpose

Generally, “transit mall” refers to a district reserved for public transit (trams, light rail, buses, etc.) and pedestrians, with passenger cars and other vehicles prohibited. It is different from pedestrian-only zones as public transit is allowed. A transit mall has 4 purposes – transportation demand management, city revitalization, enhancement of the public transit experience, and improvement of the pedestrian environment. These purposes are organically connected, as programs in which a transit mall is designated result in improved public transit and pedestrian experience. Furthermore transit malls contribute to reducing future demand for transportation and encouraging local as well as regional development. The following are more details on these purposes:

- Transportation demand management: As set forth in the Basic Plan for Public Transport, the fundamental purpose of a transit mall is to reduce the demand for passenger car use.
- City revitalization: A transit mall is sometimes created as part of transportation demand management to influence land use. The zone should therefore be designed in consideration of transportation quality (convenient, safe, and comfortable). It cannot compromise accessibility nor can it be far from the reach of public transport. In terms of safety, a transit mall cannot be effective if located in any zone where traffic speeds are excessively high (or where mobility is important or where the zone serves as a transportation hub) or in areas prone to crimes and/or accidents. As far as convenience is concerned, a transit mall cannot be located in areas that can only be accessed by driving (such as hospital areas).
- Enhancement of the public transit experience: Transit malls limit the use of passenger cars and enhance the timeliness, speed, and frequency of public transit. They can be located in areas where various types of public transit are concentrated. After a zone is selected, routes and frequencies can be increased for user convenience as well as for better profitability of the public transit companies.
- Improvement of the pedestrian environment: The presence of vehicles can pose a potential threat to pedestrians, and a transit mall can help improve their safety. It can also insert various elements of urban design (art, benches, trees, etc.) in the zone to attract more pedestrians.

Legal Basis

In Korea, there are still no laws that stipulate specific details on the definition and creation of a transit mall. Nonetheless, the Urban Traffic Readjustment Promotion Act and its Enforcement Decree allows city mayors to designate and operate transit malls as part of transportation demand management to facilitate urban transportation. In addition, the Road Traffic Act under the “Prohibition Against & Limitations on Travel” article sets forth that the head of a local police agency may prohibit or limit the passage of vehicles. Lastly, the Act on the Support & Promotion of Utilization of the Mass Transit System and its Enforcement Decree prescribes under “Recipients of Financial Assistance” that the state or a local government organization may provide part or all of the required funds, as a subsidy or loan, to another local government organization or a public transport

service provider for the operation of specific programs.

Examples At Home & Abroad

Outside Korea, many transit malls were designated across regions in Europe and North America in the 1960s and 1970s. Since then, some have been modified or removed, but many are still in operation. In Japan, there are many transit malls, but they are either at the stage of social experimentation, except in some regions, or insufficient to be called a transit mall.

In Korea, the first transit mall was designated on Jungang Road in Daegu in December 2009. Another transit mall is underway on Dongcheon Road in Busan. The city of Incheon is also reviewing the introduction of a transit mall (on Sijang Street), as are many other local governments.

Process

Selection of Transit Mall Candidate Areas in Seoul

As part of its transportation policy, Seoul aimed to create an urban environment where people and public transit come first and reviewed the introduction of a transit mall beginning in late 2011. To select suitable candidate locations, the City worked with The Seoul Institute to develop its “Criteria for the Selection of Transit Mall Candidate Locations for Seoul” and selected 10 areas based on land use, floating population, access to public transit, number of public transit users, extension of the target road, continuity of road, presence of entry to/exit from parking facilities, presence of access-controlled facilities during vehicle access control, characteristics of business districts, and symbolic significance. In the initial review, 82 public transit nodes with high floating populations were selected. They were then narrowed down to 32 which had subway stations within walking distance, a high number of subway users and a large floating population, and other relevant aspects. The list was then narrowed down to 10 final candidate locations.

Selection & Progress

Of the 10 candidate location finalists, the City of Seoul chose Yonsei-ro for its pilot program after considering the surrounding conditions. Overall and detailed designs were initiated while a program committee was organized to communicate with local residents and interested parties. Public hearings and resident orientations were also frequently hosted. With input from residents, the program finally began construction in September 2013. In January of the following year, the transit mall was opened. The scope of the program was the 550m segment on Yonsei-ro (Shinchon Rotary to Yonsei University) and the 450m segment of Myeongmul (Attrac-

tion) Street (Hyundai Department Store to Yonsei Severance Hospital) in Shinchon-dong, Seodaemun-gu. The total program cost was KRW 7.915 billion, with KRW 1.35 billion coming from the national government. Construction was for a period of nearly 2 years, from March 2012 to December 2013.

Figure 1 -Yonsei-ro Transit Mall: Location & View from the Air



(a) Yonsei-ro Transit Mall Location

(b) Yonsei-ro Transit Mall View

Source: Press release by Seoul Metropolitan Government (2013).

Program Summary

Detour Traffic Control due to Transit Mall Construction

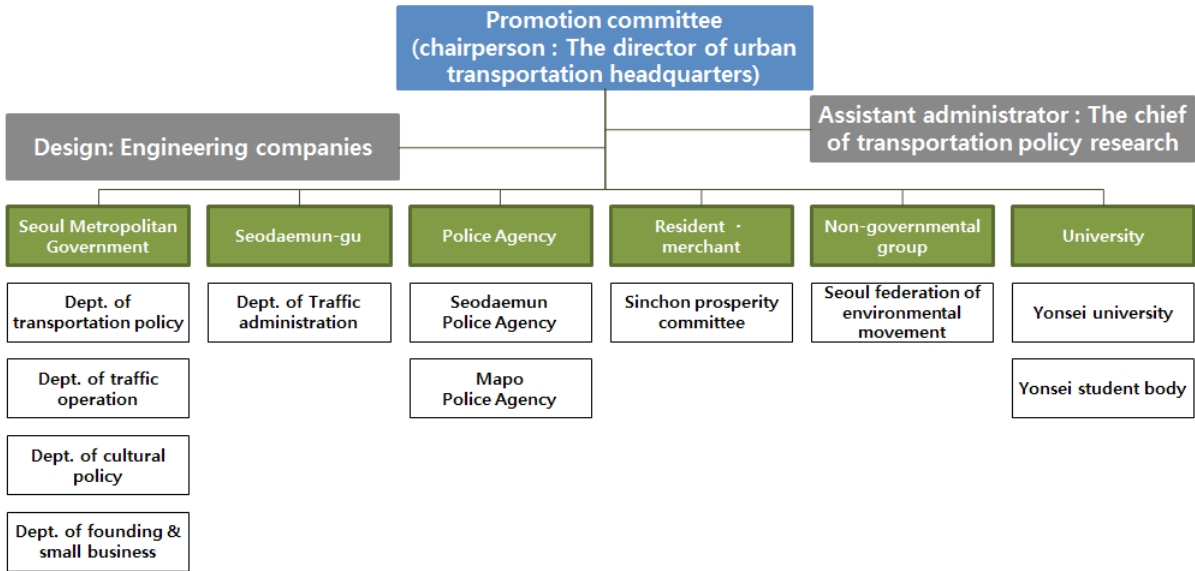
Construction of a transit mall on Yonsei-ro meant that measures to process detour traffic were needed. There were traffic congestion concerns for adjacent roads due to the detour, and discussions were held to minimize the congestion. First of all, a new intersection was installed at the north entry to Yonsei-ro to accommodate the detour traffic and the signal system was improved in the adjacent intersections. One-way signs were added to the nearby roads to facilitate the traffic flow. In areas where a large number of pedestrians were expected, crosswalks were added.

Management of Conflict between Interested Parties

Due to vehicles being prohibited in the area, a transit mall program may lead to inconvenience in travel, reduced revenues, and a slowdown in business activities, giving rise to conflict between interested parties.

In an effort to encourage such parties to participate in the program and reach agreement, the City of Seoul organized a program committee, comprised of 6 institutions – the city, the local gu district, the police, a local merchants’ association, a civic group, and the university – and of 3 subcommittees – transportation, design/construction, and promotion. Resident hearings and orientations were frequently held for local inhabitants, and discussions were held on improving the transportation system and revitalizing local business. The program, with a great emphasis on communication, also convinced residents and the relevant administrative organizations through clear legal and administrative logics. These series of actions, designed with clarification in mind, led to successful introduction of the program in a short period of time. In 2013, the program was selected as a role model for conflict management in Seoul, eligible for the joint government assessment program.

Figure 2 -Yonsei-ro Transit Mall Program Committee



Source: Kim Sang-shin, Lee Su-jin (2014).

Table 1 - Major Points of Conflict & Resolution by Local Residents & the Relevant Administrative Authorities

Parties Involved	Conflicts	Resolution (Discussion Points)
Local Residents & Merchants	<ul style="list-style-type: none"> Reduced business due to controlled vehicle access Congested nearby road networks due to detour Demand for large public parking facilities 	<ul style="list-style-type: none"> 80% of vehicles passing through cause congestion, rather than by vehicles trying to access the area Explained positive effect of increased pedestrian numbers on business based on actual examples from home and abroad Explained ways to attract visitors (e.g., cultural events) Established effective transportation plans (e.g., detour, new intersection) Explained traffic simulation results Explained extra parking capacity after investigating parking facilities in the Shinchon area Agreement signed with Hyundai Department Store and night time discounts offered to merchants
Hyundai Department Store	<ul style="list-style-type: none"> Reduced revenues due to access control Demand for a new intersection in front of Hyundai Department Store on Yanghwa-ro 	<ul style="list-style-type: none"> Explained the issues surrounding installation of a new intersection Left turns to be allowed at existing intersection as additional access route
Seoul Metropolitan Police Agency	<ul style="list-style-type: none"> Concerns of traffic congestion from the extra crosswalk in front of Yonsei University and a new intersection in front of Severance Hospital 	<ul style="list-style-type: none"> Simplify and link the signals by removing the straight-ahead/left-turn signals for vehicles leaving Yonsei University Sensor proposed that would deter lines of tailgating cars entering the intersection during red signal Merchants' association can participate in review of traffic safety facilities to convince the authorities of the necessity of the program
KEPCO	<ul style="list-style-type: none"> Moving of 40 power distribution equipment units to be financed by the city 	<ul style="list-style-type: none"> Legal advisors showed that existing law made it appropriate for KEPCO to finance the move
Street Vendors	<ul style="list-style-type: none"> Demand to stay in current locations even after the transit mall opens Demand for a new intersection 	<ul style="list-style-type: none"> Proposed moving to an alternative location A council comprised of the gu district office, the merchant's association, and street vendors to develop a protocol that specifies the locations, numbers, sales methods, etc.

Source: Kim Sang-shin, Lee Su-jin (2014).

Transit Mall for a More Relaxed, Easier Way to Walk & Travel

Yonsei-ro suffered from poor pedestrian safety and persistent congestion. According to city research on the floating population in 2009, pedestrian volume on Yonsei-ro was 2,000 - 3,000 people per hour, approximately 30,000 per day. The pedestrian path along Yonsei-ro was 3 to 4m in width, enough to accommodate pedestrians, but facilities such as KEPCO's power distribution equipment and street vendor stalls constricted the path, reducing this width to between 1 and 2m in reality. One of the greatest goals became to secure space for pedestrians to enjoy the walk. The power distribution equipment and street stalls were moved or removed, and the 2 driving lanes (in both directions) were reduced to a single lane in each direction. The points where pedestrians congregate or travel were identified and the pedestrian walk was expanded up to 8m, depending on the location in connection to the major routes. As a result, chicanes were naturally formed, slowing down traffic speed.

Figure 3 - Yonsei-ro Transit Mall



Pedestrians Come First in the Transit Mall

To ensure the safety of pedestrians, the speed limit on all vehicles in the Yonsei-ro transit mall is limited to 30km/h or less, allowing vans carrying 16 or more, vehicles for emergency use, and bicycles at all times. To prevent congestion, taxis are only allowed between the hours of midnight and 4:00 AM when public transit

is not available. Those vehicles that are necessary for business must obtain a permit, and are allowed access only from 10:00 – 11:00 AM and 3:00 – 4:00 PM. All other vehicles are prohibited from travelling or stopping/parking on the road. Violations result in a fine of KRW 40,000 for passenger vehicles and KRW 50,000 for vans. From 2:00 PM Saturday to 10:00 PM on Sunday, all buses passing Yonsei-ro detour around the area to keep the space solely for pedestrians.

Transit Mall as a Cultural & Living Space for People

From the start, the transit mall program has been discussed in relation to long-term regional development. Restricted vehicle access resulted in no-throughway roads on either side of the intersection, and this space is used to hold various art and cultural events, such as Open Art Theater (May – October, every Saturday), B-boy battles, Seoul festivals, and many more. The space can also be used by anyone for an impromptu performance, without going through the complicated process of obtaining approval. Such free use of the space is the driver behind creativity and new cultural expression unique to Shinchon, and a place to enjoy culture for visitors. Other events and possibilities that are under review include installation of a fountain on Attraction Street as well as public artwork by citizens, local artists, and university students.

Major Benefits

According to a press release by the Seoul City Transportation Headquarters in July 2014, positive effects from the new transit mall included: traffic accidents reduced by 34% in 6 months compared to the same period of the previous year; people satisfied with the changes; increased number of city bus users; and increased revenues and more visitors to Shinchon businesses.

Traffic Accidents Reduced

From January to June 2013, there were a total of 29 traffic accidents on Yonsei-ro. During the same period in 2014, this number was down to 19 (34.5% less than the previous year). Also of note is that accidents on side roads near Yonsei-ro dropped by 22% and from Shinchon Station to the Yonsei University main gate, by 54.5%. Concerns had been raised regarding pedestrian safety since there would be many more of them crossing the roads without traffic signals after the transit mall was built, but with a speed limit of 30km/h and a reduced traffic volume, the number of accidents fell.

Table 2 - Number of Traffic Accidents On & Near Yonsei-ro

	Total	Jan. – Jun. 2013	Jan. – Jun. 2014	Change (%)
Total	48	29	19	-34.5
Yonsei-ro	16	11	5	-54.5
Side Roads	32	18	14	-22.2

Source: Press release by Seoul Metropolitan Government (2014).

Increased Satisfaction & Number of Bus Users

The City of Seoul conducted a survey on 300 visitors to Yonsei-ro and 1,000 residents which compared their satisfaction before and after construction of the transit mall. The survey revealed that 70% were satisfied, 58 percentage points higher than those who were more satisfied before the changes (12%). Upon closer look, it can be seen that a majority of respondents were satisfied with safety over the situation in the past, where people and vehicles shared narrow, crowded roads. Others felt positively about the improved convenience and cityscape.

Another survey on 10 bus routes showed that some 54,000 people visited Yonsei-ro via bus from January to May 2013; during the same period in 2014, the number was 61,000, up by 11.1%. This is because Yonsei-ro, where the year before cars had been reduced to 3 – 4 km/h due to the heavy congestion (both weekdays and weekends), was significantly easier to visit by bus in a timely manner after introduction of the transit mall.

Table 3 - Average Number of Daily Bus Passengers on Yonsei-ro

Average Number of Daily Bus Passengers	Total	Jan.	Feb.	Mar.	Apr.	May
2013	54,974	10,799	10,665	11,278	10,937	11,295
2014	61,089	10,751	12,013	12,992	12,312	13,021
Change (%)	+11.1	-0.4	+12.6	+15.2	+12.6	+15.3

Source: Press release by Seoul Metropolitan Government (2014).

Increased Revenues & More Visitors to Shinchon Businesses

After the transit mall was built, business in Shinchon improved. In the first 5 months of 2014, the number of visitors to Shinchon stores increased 28.9% over the same period in 2013, while the number of transactions grew by 10.6% and revenues by 4.2%.

Table 4 - Revenues, Visitors & Transactions at Shinchon Businesses

(Units: KRW 1 million/1,000 people/1,000 transactions)

	2013					2014				
	Jan.	Feb.	Mar.	Apr.	May	Jan.	Feb.	Mar.	Apr.	May
Total Revenue	16,840	16,292	17,633	16,714	17,782	17,692	16,096	18,654	18,063	18,315
Total Number of Visitors	198	192	211	211	220	245	244	274	276	290
Total Number of Revenue-Generating Transactions	564	494	609	598	651	592	550	687	680	717

Note: Based on analysis of data from 1,000 BC Credit Card-affiliated stores in the Yonsei-ro transit mall.

Source: Press release by Seoul Metropolitan Government (2014).

Limitations & Needed Improvements

Better Enforcement of Vehicle Restrictions

All cars, with the exception of approved vehicles, are prohibited from driving in the transit mall, but motorcycles and other vehicles continue to violate this restriction. Manned or unmanned equipment is needed to better manage this situation.

Pursuant to the Road Traffic Act, the city or the gu district office has the authority to manage violations related to stopping, parking, bus lanes, and emergency lanes. However, the transit mall is under the jurisdiction of policy pursuant to Article 6 of the Road Traffic Act. The transit mall thus needs full police supervision, but this is difficult due to a chronic shortage of manpower. Automated equipment can be used, but while the police can deal with traffic signal and speeding violations via cameras etc., there are no specific regulations on access violations. The installation of additional equipment by the police is therefore not an option. Consequently, the City of Seoul has installed 24-hour surveillance cameras to observe unauthorized vehicles entering Yonsei-ro, in operation since midnight Monday, March 3, 2014. There are 4 CCTVs; images of unauthorized cars are sent to the police to impose fines, but this divided system wastes time and manpower for both the city and the police. Operational efficiency will be enhanced if the authority to control and regulate violations in the transit mall could be transferred to the city or the gu district, as are other traffic violations prescribed in the Urban Traffic Readjustment Promotion Act.

Another option is to use unmanned equipment to regulate and photograph vehicle violations, but prior to any such steps, full and voluntary cooperation by visitors and citizens is necessary. This is not an issue that can be addressed and resolved in a short period of time. The relevant authorities will need to continue promoting the necessity of the transit mall and increase public awareness.

Carelessness by Pedestrians While Crossing Roads

After introduction of the transit mall, traffic accidents on Yonsei-ro decreased. However, it is now easier to cross the roads than before, exposing pedestrians to potential accidents. In fact, many pedestrians cross the road where there is no crosswalk. When visibility is significantly reduced at nighttime, accidents involving vehicles and people are more likely to occur. It is imperative that the risk of accidents involving pedestrians is minimized through preventive measures such as brightening the streetlights, better control of vehicle speeds, and raising awareness on the dangers of jaywalking.

Implications

The Yonsei-ro transit mall is meaningful in that it is the first of its kind in Seoul. In the past, the city attempted to introduce this concept as well as pedestrians-only zones, but plans never came to fruition due to conflicts between interested parties and poor cooperation from the relevant authorities in gu district offices. The Yonsei-ro transit mall program however was implemented over a short period of time, thanks to effective management of communication and conflict between the interested parties. The program is touted as one of the most successful examples of conflict management.

Unlike the transit mall on Jungang-ro in Daegu, the Yonsei-ro transit mall removed the elevation between the pedestrian walkway and the road for vehicles. On the weekends, Yonsei-ro is transformed into a pedestrians-only zone. This is one step further from other existing transit malls, creating a better pedestrian environment.

Seoul's first transit mall has been a success, and the city is also considering plans to transform this zone into a full pedestrian-only zone later. It is one of the best examples of Seoul's efforts to achieve its vision of putting people and public transit first and creating a sustainable urban environment. Based on this success, Seoul has plans for a second transit mall in a selected area.

Suitable target areas are essential to expanding the transit mall program. Because the Yonsei-ro transit mall is in its infancy, the surrounding environment – ancillary facilities, trees, landscaping, etc. – is still insufficient. More problems may surface over time. Instead of hastening to expand the program, it would be wiser to identify and resolve the problems and shortcomings in the first program before moving on to the next target.

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