Seoul Masterplan for the safety and convenience of pedestrians

The history of Pedestrian Masterplan

The Basic Ordinance for the safety and the improved environment for Seoul citizens

The 1st Masterplan for the improvement of pedestrian environments

The 2nd Masterplan for the improvement of pedestrian environments

The study for the measurements for the improvements for pedestrian environments began

The Pedestrian Law for safety and convenience was legislated

Seoul Vision of "Pedestrian Friendly City of Seoul Transport Vision 2030" established masterplan for the safety and convenience of pedestrian established - Based on "The Pedestrian Law"
01. Current Situation of walking in Seoul

1. Over 70% of Seoul’s streets are narrow streets with no sidewalk

- Streets with no sidewalk
- The percentage of pedestrian paths among total road length: Approximately 35%

| [Seoul City Road expansion of road and pedestrian path] |
|-------------|----------------|----------------|
|             | Lengths(m)      |                |
|             | Road            | Pedestrian path |
|             | Total General  | Only           |
| Seoul       | 8,147,579       | 7,972,429      | 175,150         | 2,788,619       |

Seoul City Statistics, Seoul City Council, 2012

- Under 12m width narrow streets are over 70%
  [4 different road expansion]

<table>
<thead>
<tr>
<th>Road 4 (Over 40m)</th>
<th>Road 3 (25~40m)</th>
<th>Road 2 (12~25m)</th>
<th>Road 1 (Under 12m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>254,425m</td>
<td>712,030m</td>
<td>861,167m</td>
<td>933,577m</td>
</tr>
<tr>
<td>2.88%</td>
<td>10.74%</td>
<td>10.57%</td>
<td>14.11%</td>
</tr>
</tbody>
</table>

Seoul City Statistics, Seoul City Council, 2012
1.2 Under 3 meter wide pedestrian walkways

- Fenced narrow pedestrian walkways
- 11% the percentage of available pedestrian path on roads
  [The percentage of pedestrian paths in roads]

<table>
<thead>
<tr>
<th>size (㎡)</th>
<th>Roads</th>
<th>Pedestrian path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seoul</td>
<td>82,623,346</td>
<td>10,249,537</td>
</tr>
</tbody>
</table>

Seoul City Statistics, Seoul City Council, 2017

- Half of pedestrian paths under 3m width
  [The numbers and the percentage of different widths of sidewalks]

<table>
<thead>
<tr>
<th>Width (m)</th>
<th>0~1</th>
<th>1.1~2.0</th>
<th>2.1~3.0</th>
<th>3.1~4.0</th>
<th>4.1~6.0</th>
<th>over 6.0m</th>
</tr>
</thead>
<tbody>
<tr>
<td>spots</td>
<td>234</td>
<td>1,162</td>
<td>2,455</td>
<td>1,663</td>
<td>1,518</td>
<td>2,218</td>
</tr>
</tbody>
</table>

Seoul City, Seoul mobile population research, 2009
Analysis of Seoul mobile population research 10,000 spots

1.3 Over 50% of traffic accidents happen on side streets

- Dangerous side streets for pedestrians
- High traffic accident rates on side streets
  [The rates of traffic accidents of main streets to side streets]

Road Traffic Authority, Regional traffic accident statistics, 2011
Accident data are from the National Police Agency, it may differ from Seoul City statistics data, under 5th sheet

[Pedestrian fatality rates of OECD]

Road Traffic Authority, OECD Traffic accident comparison, 2012
1.4 Dangerous Pedestrian crossings

325m Average width of pedestrian crossings

<table>
<thead>
<tr>
<th>Year</th>
<th>Cross ways</th>
<th>Cross ways per 1km</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>25,276</td>
<td>3.20</td>
</tr>
<tr>
<td>2008</td>
<td>25,590</td>
<td>3.33</td>
</tr>
<tr>
<td>2009</td>
<td>26,273</td>
<td>3.31</td>
</tr>
<tr>
<td>2010*</td>
<td>26,895</td>
<td>3.35</td>
</tr>
<tr>
<td>2011*</td>
<td>28,004</td>
<td>3.51</td>
</tr>
</tbody>
</table>

Seoul statistics [http://data.seoul.go.kr]

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Length(m)</th>
<th>Square meters</th>
<th>Number</th>
<th>Length(m)</th>
<th>Square meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007*</td>
<td>206</td>
<td>7,958.8</td>
<td>59,797.9</td>
<td>81</td>
<td>4,688.0</td>
<td>46,714.7</td>
</tr>
<tr>
<td>2008*</td>
<td>198</td>
<td>7,709.2</td>
<td>49,863.8</td>
<td>79</td>
<td>4,540.0</td>
<td>46,088.9</td>
</tr>
<tr>
<td>2009*</td>
<td>187</td>
<td>7,675.0</td>
<td>48,418.0</td>
<td>91</td>
<td>4,830.0</td>
<td>47,082.0</td>
</tr>
<tr>
<td>2010*</td>
<td>180</td>
<td>7,612.9</td>
<td>47,161.0</td>
<td>87</td>
<td>9,822.0</td>
<td>47,655.0</td>
</tr>
<tr>
<td>2011*</td>
<td>199</td>
<td>7,396.0</td>
<td>45,286.0</td>
<td>88</td>
<td>4,682.0</td>
<td>47,690.0</td>
</tr>
</tbody>
</table>

Seoul City Statistics, Seoul City Council, 2012

1.5 Low pedestrian Satisfaction

Pedestrian satisfaction

[Satisfaction scores on different types of transport (out of 10)]
1.6 Transit is a hassle

Inconvenient long distance transit

[Average transit distance]

<table>
<thead>
<tr>
<th>Transit site</th>
<th>distance (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jongno-3ga (Subway line No.1 → No.5)</td>
<td>312</td>
</tr>
<tr>
<td>Yeouido-gu (Subway line No.4 → No.7)</td>
<td>278</td>
</tr>
<tr>
<td>Seoul Metro Area</td>
<td>136</td>
</tr>
<tr>
<td>Gangnam-gu (bus → Subway line No.3)</td>
<td>280</td>
</tr>
<tr>
<td>Seoul Station (bus → Subway line No.4)</td>
<td>190</td>
</tr>
</tbody>
</table>

*2013, The Seoul Metro Transport Plan

<table>
<thead>
<tr>
<th>Countries</th>
<th>distance (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea</td>
<td>285</td>
</tr>
<tr>
<td>Penn Station (U.S., New York)</td>
<td>79</td>
</tr>
<tr>
<td>Berlin Central Station (Germany, Berlin)</td>
<td>138</td>
</tr>
<tr>
<td>St. Pancras Station (U.K., London)</td>
<td>197</td>
</tr>
<tr>
<td>Fukuoka Station (Japan, Kyushu)</td>
<td>156</td>
</tr>
</tbody>
</table>

*The 1st Complex Transil Center Basic Plan (2010), the Ministry of Land, Infrastructure and Transport

02. Assessing the Change & Direction
2.1 Transport Policy Paradigm Shift

Present
- Car
- Mobility
- Restricted Mobility
- Owning
- Divided modality
- Top-down
- Hardware
- Efficiency only

Future
- Human
- Accessibility
- Universal mobility
- Sharing
- Inter-modality
- Bottom-up
- Software
- Equity+Sustainability+Economy

What effects on pedestrians?

2.2 Transport Policy Paradigm Shift - Pedestrians side

> Human

[Paris] Vehicle road close, Pedestrian only crossing
[Paris] The Seine River Bridge, Pedestrian crossing

[London] The Millennium Bridge, Pedestrian only crossing

[New York] The Brooklyn Bridge, Pedestrian only crossing

[London] Pedestrian centered cross road

[New York] The pedestrian space project
2.2 Transport Policy Paradigm shift - Pedestrians side

Accessibility
[Netherlands residential road improvement]

(The U.K. residential road improvement)

Universal Mobility

Mobility Assistance for the mobility disability
- The Transport Improvement Law for the mobility disability (2005.01)
- The Transport Improvement Act for the mobility disability (2007.05)
- The Transport Improvement Plan for the mobility disability (2008)
- 14 cities including Seoul established The Transport Improvement for the mobility disability Act
2.2 Transport Policy Paradigm shift _Pedestrians side

Sharing

[ Easy access to public transportations ]

[ The change in public transport use ]

Transport statistics data, Seoul City Council, 2012

2.2 Transport Policy Paradigm shift _Pedestrians side

Bottom up (Participation of citizens, Communication with citizens )

Introducing the participation of citizens on policies
- Residents' referendum is introduced (The Referendum Act, 2004.01)
- The Residents' Recall System (2008.05)
- The Participatory Budgeting (The Local Finance Act, 2011.09)
- The Seoul Citizen Participatory Budgeting Ordinance(2012.05)
- The allocation of budget for the Participatory Budgeting System(2013)

[ Current developed communities & The Community Building Plan in Seoul City (2012) ]

[ Steps of public participation in government policies ]

Policy Establishment ➔ Policy Evaluation ➔ Budgeting

<table>
<thead>
<tr>
<th>Project</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Community Project</td>
<td>500</td>
<td>400</td>
<td>386</td>
<td>1,980</td>
<td>2,580</td>
<td>3,180</td>
</tr>
<tr>
<td>with Citizens</td>
<td>(100)</td>
<td>(400)</td>
<td>(200)</td>
<td>(900)</td>
<td>(600)</td>
<td>(600)</td>
</tr>
<tr>
<td>Budget</td>
<td>72</td>
<td>180</td>
<td>204</td>
<td>204</td>
<td>204</td>
<td>204</td>
</tr>
</tbody>
</table>

Transport Statistics, Seoul City Council, 2012
2.3 The prediction of the volume of Pedestrians

- The increasing use of public transport and on the volume of pedestrians related to public transport
  - The increase of public transport is expected
  - Therefore, the volume of pedestrians related to public transport is predicted to rise

The Seoul Public Transport Plan, 2010
[The percentage of public transport users and the percentage of transport means to public transport]
2.3 The prediction of the volume of Pedestrians

- The increasing number of overseas visitors, who are expected pedestrians
  - Tourists to Seoul City is estimated 100 million people by 2021
  - Pedestrian traffic related to tours is predicted to rise

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[Estimation of the domestic and international visitors to Seoul City]
```

2.4 The purpose of the vision & the Policy

- Principle

  **Principle 1** Correspondence with The Seoul Transport Visic

  **Principle 2** Association with The Pedestrian Friendly Seoul City Visi

  **Principle 3** Continuity from The 2nd Pedestrian Masterplan
2.4 The purpose of the vision & the Policy

[VISION] ---
Happy Pedestrian Friendly City, Seoul

[OBJECT] ---
- Pedestrian friendly Living
- Pedestrian friendly Mobility
- Pedestrian friendly Culture

[The Seoul Transport Vision 2030]
- Human
  - Sound, Safe Streets
- Share
  - Convenient Streets
- Environment
  - Story-telling Streets
  - Pedestrian route network
  - Integrate with Public Transport
  - Promote Walking

2.4 The purpose of the vision & the Policy

The Objectives of the Seoul Transport Vision
The main purpose of the Seoul Transport Vision 2030

<table>
<thead>
<tr>
<th>Projects</th>
<th>2018</th>
<th>2018 (Short term)</th>
<th>2021 (Middle term)</th>
<th>2031 (Long term)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The rate of Pedestrian path</td>
<td>15.9%</td>
<td>17%</td>
<td>18%</td>
<td>20%</td>
</tr>
<tr>
<td>Pedestrian path</td>
<td>9%</td>
<td>9%</td>
<td>12%</td>
<td>15%</td>
</tr>
<tr>
<td>Pedestrian accidents</td>
<td>10,783</td>
<td>9,000</td>
<td>8,000</td>
<td>1,000</td>
</tr>
</tbody>
</table>

The policy index of the Pedestrian Friendly Seoul City Vision

<table>
<thead>
<tr>
<th>Projects</th>
<th>Unit</th>
<th>2012</th>
<th>2014 (Short term)</th>
<th>2020 (Middle term)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian accidents</td>
<td>--</td>
<td>10,869</td>
<td>10,000</td>
<td>8,000</td>
</tr>
<tr>
<td>Pedestrian path</td>
<td>%</td>
<td>8</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>The rate of pedestrian</td>
<td>%</td>
<td>15</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>The mobility disability protection area</td>
<td>--</td>
<td>1,667</td>
<td>1,990</td>
<td>2,600</td>
</tr>
</tbody>
</table>

The aims of the Pedestrian Safety and Convenience Promotion Basic Plan

1. Total 10% decrease of the number of under 2m width pedestrian paths
   - Under 2m width sidewalks took up 18.5% (2009 mobile population research)

2. 20 districts to promote pedestrian environments
   - Except the mobility disability protection areas
     - (2011 Child protection districts 1,566 / Elderly people protection districts 44)

3. The rate of vehicles traveling within 5km reduce to below 10%
   - The rate of vehicle uses within 5km is 15.15% (2011)

4. Pedestrian accidents drop to 9,000
   - Pedestrian death 1.7 among 100,000 people
   - (Korea 5.8, Seoul 8.1, Japan 15, The EU 8.7, The USA 14, France 8.8)
3. Vision & Object & Action (3 objects, 10 actions, 21 projects)

[ Vision ]

Happy Pedestrian Friendly City, Seoul

[ Object ]

Pedestrian Friendly Living

Pedestrian Friendly Mobility

Pedestrian Friendly Culture

[ Action ]

1. The Expansion of the Pedestrian Environment Improvement Project according to the function of districts
2. Enhancing School Zone Safety
3. Encouraging the participation of local and public groups
4. Pedestrian paths improvement for public transport transit
5. Multiple pedestrian routes for public transport transit
6. Pedestrian route information systems with feedback from citizens
7. Walking together project, uniting Seoul
8. Main pedestrian street development
9. pedestrian Green network
10. Effective strategies for pedestrian path improvements
11. Regular data systems of pedestrian routes
12. Encouraging the participation of local and public groups
Action 1. The expansion of the pedestrian environment improvement in accordance with the nature of the function of the districts

- **Commercial district**
  - Aim: Mobility, Connectivity
  - Districts: Myung-Dong

- **Residential area**
  - Aim: Connectivity
  - Area: Sinrim-Dong

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Action 2. School Zone Safety

- Regulation of traffic on school times

- School Zone cross walk promotion campaign

- Look campaign in New York to alert motor vehicles at pedestrian crosswalks

---

Drive smart.

Last year 57% of traffic fatalities were people on foot. Look out for your fellow New Yorkers.
Action 3. Strong connectivity with improvements

- Broad walk-crossing
- Possible areas: Myung-Dong, Gangnam station, Jongro-Gu area, DDP areas, which has the high volume of pedestrians

- Four way pedestrian crossing
- Possible area: Jongro-Gu crosswalks which have the high volume of pedestrians in 3-4 lanes of roads

Action 4. Pedestrian environment improvement at public transportation facilities

[The Problem of street vendors at stops]

- Transport facility areas which has the high volume of pedestrians need sufficient sidewalk.
- But, the available sidewalk is narrow for pedestrians due to vendors

[Removal of these street vendors is an on-going dispute]

Improvement
Schemes

- Physical facilities such as bollards and flower beds are to improve pedestrian environments and to prohibit vendors from occupying the space
- The organization of pedestrian-related policies are necessary
Action 5. Multiple pedestrian routes to public transportation

[The problems of subway station gates]
- Subway station gates occupying much pedestrian space make actual pedestrian walk space narrow and deteriorated.
- There are the same number of subway station gates regardless of the number of subway station users.

[Construction of new subway station gates]
- New subway gates are to be connected to buildings and other areas.
- An incentive policy to promote new designs of subway station gates.

There is the incentive of an equal area ratio when including subway stations in buildings. The Seoul City Plan Ordinance 547:
- The area in the floor area ratio of the building is divided into public space.
- The regulation of the floor area ratio of the building may be alleviated through the deliberation of the City Plan Committee.
- The regulation of the height of the building may be alleviated when regarded as historical, cultural and environmental district. (4.5 feet or 6.8 feet)

Action 6. Pedestrian participating public transportation system

- Information of pedestrian route update systems which reflect opinions from pedestrians
- Convenient transit route information to public transportation
- Navigating systems for public transport users
- Detailed pedestrian walk information systems outside of public transport
- Primarily, the systems are introduced to busy subway stations, and then will be extended to other public transportations

[Pedestrian path information types for public transport]
Action 7. Barrier-Free Pedestrian walk spaces

- Barrier-Free transportation environment
  Improvement in accessibility and mobility for the mobility disability in pedestrian paths, walk-crossings, bus stops and subway station gates

- Bus stop renovations on sidewalks
  Complex bus stop renovations such as facilities to guide to bus stops, arriving bus info facilities and real areas for the mobility disability.

- Convenient facilities for subways
  Building Convenient facilities in subway transit areas and elevators through to bypasses and crossings

Action 8. Streets renovation mainly for Pedestrians

- Prospective pedestrian main streets
  - Commercial facilities on the ground level
  - High volume of pedestrians
  - The pedestrian paths are wider than roads
  - Convenient facilities for pedestrians
  - A variety of events on the streets
Action 9. Walk together project, uniting Seoul

- Connecting "Walking Events" held by different locals
- Development of means to inform a variety of "Walking Events"

Action 10. Pedestrian Projects related to pedestrian paths

- Convenient facilities such as toilets on pedestrian routes
- Pedestrian guide signs
- Pedestrian route map, Information desk center

"More convenient, pleasant and legible"

1. Pedestrian routes information
2. Pedestrian circular walk
3. Noticeable walkway signs
Thank you.