

Pedestrian Counting System

The City of Melbourne's pedestrian counting system measures pedestrian activity in the city each day.

The system gives the City of Melbourne a better understanding of how people use the city at different times of the day so we can manage the way it functions and plan for future needs.

Background

Walking is important to a city. Pedestrian activity is an indication of a city's vibrancy and vitality. There is also a direct link between a city's economic prosperity and the safety and convenience of the pedestrian experience.

It is estimated that more than 844,000 people live in or travel to the municipality on a typical weekday. The vast majority of this daily population becomes a pedestrian at some point during their visit.

The City of Melbourne's automated counting system provides intelligent information on pedestrian activity in the municipality. The system comprises 28 sensors, which count pedestrian movements 24 hours a day, seven days a week.

Objectives

The objectives of the system are:

- to inform decisions about urban planning and management
- to identify opportunities to improve city walkability and transport
- to measure the impacts of events and specific marketing campaigns on pedestrian activity
- to monitor retail activity in the city

- to assist the business community in developing marketing strategies to maximise their exposure and identify staffing and resource requirements.

How it works

The system comprises a number of pedestrian counting sensors installed across strategic locations, a wireless data transmission system, a central server and a data visualisation website.

A sensor is installed under an awning or on a street pole forming a counting zone on the footpath below. It records all multi-directional pedestrian movements passing through the zone.

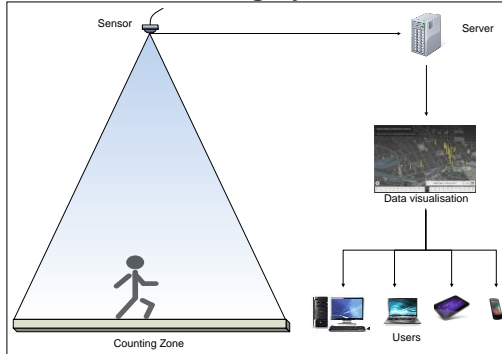
The data collected is stored in the onsite data logger and transferred to the central server every 10-15 minutes and then uploaded onto the data visualisation website every hour.

The locations were selected based on three criteria - main pedestrian thoroughfares, retail and event activity, and egress and entry flow to these areas.

The system records movements, not images, so no individual information is collected.

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This online visualisation tool is an interactive map specifically designed to allow users to visualise pedestrian patterns at all locations on any given day at hourly intervals. It provides visual representation of pedestrian volume at each location in relation to others and automatically compares with average of the same day and time over the four preceding weeks and 52 weeks.

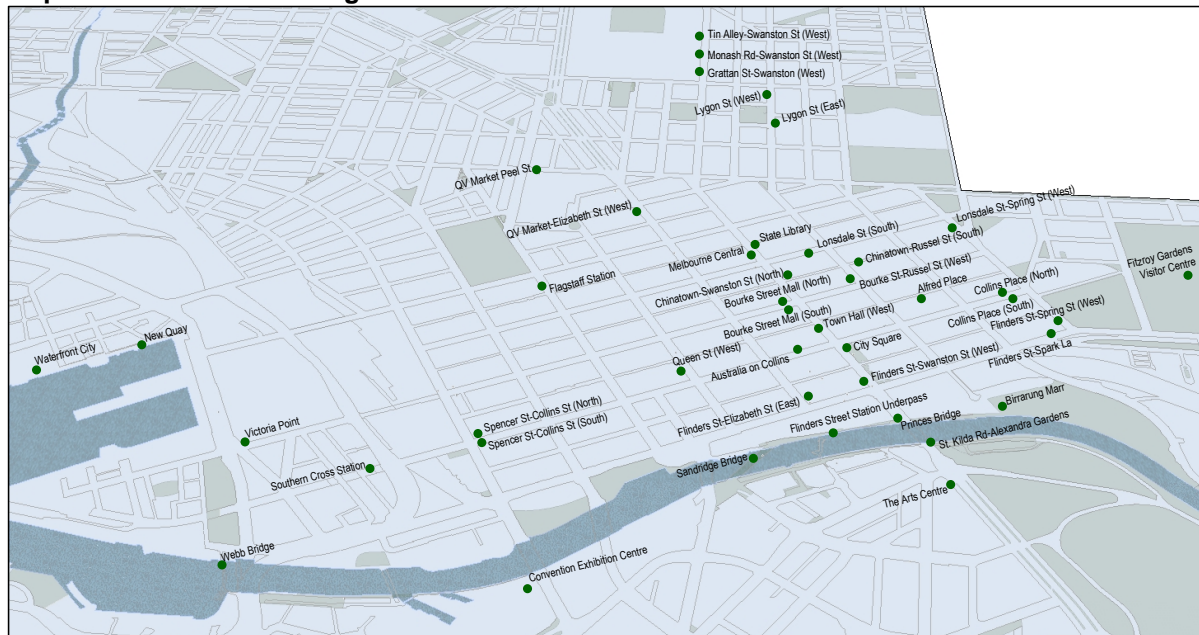
Data availability and use

The data is very useful and informative for the City of Melbourne as well as its constituencies. It has been and can be used to monitor pedestrian activity in the city over time and determine impacts of major events, changes to pedestrian facilities, relevant developments and policies.

This representation can illustrate impact of various factors influencing pedestrian activity, such as major events or extreme weather conditions, on pedestrian activity in the city and how the flow compared to short term and long term averages. In addition, the tool also allows users to download raw data in CSV format for further analysis and visualisation.

The data is publicly available online at www.pedestrian.melbourne.vic.gov.au at hourly intervals.

Map of Pedestrian Counting Sensor Locations



For further information
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