

**Civil 736 Transport Safety and Mobility****INTEGRATED PUBLIC TRANSPORT SYSTEMS PROJECT***(worth 15% of final grade)***Total of 60 Marks****Project Submission Due Date: 30 May 2024 (Thursday at 5:00pm)**

*Note: There will be a 'mark penalty' if anyone hands in the project LATE beyond the agreed deadline.*

**Learning Outcomes for project:**

- Examine public transport operation and planning using the principles of integrated systems.
- Analyse public transport terminals using the CPTED principles.
- Write a technical engineering report.

**1 PROJECT PURPOSE AND DESCRIPTION**

The purpose of the project is for students to apply theory discussed in the Public Transport Modules to a real-world problem. A similar project can be given to a recently graduated engineer in the profession. This project provides a learning exercise for students to observe, show critical thinking and write a technical engineering report.

Students are required to select a public transport terminal within the Auckland Region, which services at least two different modes (for example bus, ferry or train, bus). Using the principles of integrated public transport systems, students are required to analyze the efficiency of services and propose feasible solutions for improvement. Students are also required to complete a Crime Prevention Through Environmental Design (CPTED) audit of the terminal and surrounding walking routes (within 1km radius of the terminal).

Auckland GIS: [Auckland Council GeoMaps](#)

**2 TECHNICAL REPORT**

- Times New Romans or Arial, Font size 11 or 12.
- All images and tables need to be labeled (Figure 1, 2; Table 1, 2)
- Maximum pages is 8 (excluding title page and table of contents).
- Include title page with Full Name and ID number

5 marks is allocated to writing and presentation of the report.

### 3 DESCRIPTION OF SELECTED SITE

Provide a description of the public transport terminal selected. This includes:

- location, using Auckland GIS/Google Maps (example shown in Figure 1)
- surrounding land use
- type of public transport modes
- frequency of service during peak (7-9am, 4-6pm) and off peak
- type of shelter provided
- a few site photos

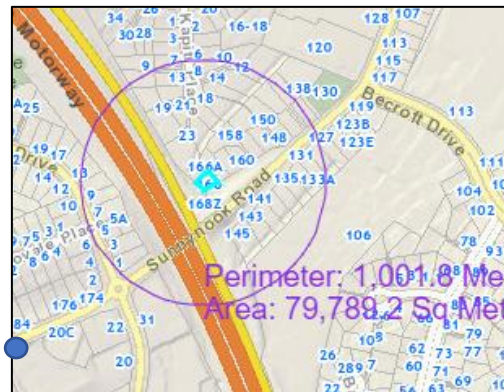


Figure 1: Example of site location

(15 marks)

### 4 TRANSFERS AT SELECTED TERMINAL

Examine the operation of the services at the selected terminal and provide evidence of the transfers at the terminal to be either planned or unplanned.

A “**planned**” transfer is a connection which has been intentionally designed by policy makers and network planners in the planning stage of the multimodal PT network to improve service efficiency and convenience for users.

An “**unplanned**” transfer is defined as a connection which has been created by the PT users from available services without any additional guidance on how to make the connection.

Use the five attributes of an integrated public transport systems to justify your answer.

- network integration
- fare integration
- information integration
- physical integration of stations
- coordinated schedules.

(25 marks)

## **5 CPTED AUDIT OF SELECTED TERMINAL**

The purpose of this task is for students to examine the selected terminal from a passengers' safety perspective, both at the terminal and walking to/from the terminal.

A CPTED audit will be conducted of the selected terminal and surrounding walking routes, within 1km of the terminal. Google maps can be used to examine a few of the popular walking routes, include walking routes from car-park, if there is one at your selected site. For the CPTED audit, pay more attention to the different types of surveillance at the terminal, which are:

- Direct presence of others
- Indirect presence of others
- Active surveillance (provided by security personnel and CCTV)
- Casual surveillance

**(15 marks)**

**TOTAL OF 60 MARKS**