



SNUG REGIONAL UPDATE - DECEMBER 2019

Dunedin

New Technology



Crikits

- IoT device
- Attaches to signal infrastructure
- Monitors orientation in three axes
- Sends email alerts if moved beyond a threshold value
- DCC has purchased 10 as a trial



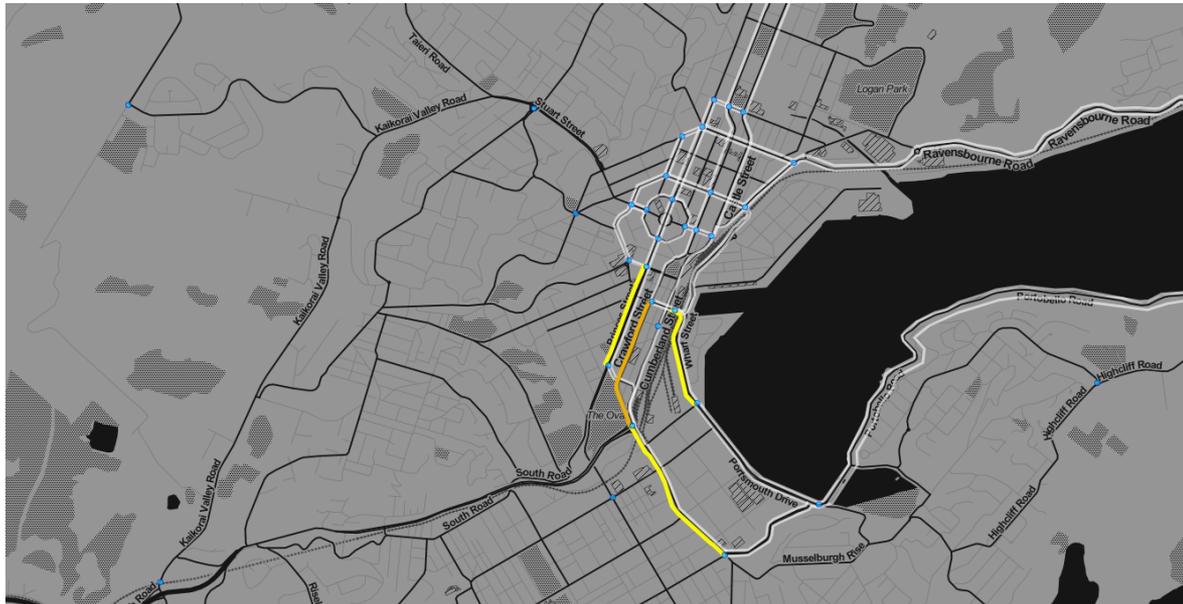
[Map](#)[Dashboard](#)[Manage](#)[Blair McKeever](#)

Dashboard

Device	Location	Compass	GPS	Temperature	Tag	State	Warning	Heartbeat	Battery		
Crikit 389	TCS32, George St / Fredrick St, Pole 4	352.57°	○	26°C		🔴	🔔	♥	🔋	☰	
Crikit 388	TCS32, George St / Fredrick St, Pole 4	304.06°	○	20°C		🔴	🔔	♥	🔋	☰	
Crikit 387	TCS21, Stuart St / Moray Pl, Pole 4	352.46°	○	19°C		🟢	🔴	♥	🔋	☰	
Crikit 386	TCS21, Stuart St / Moray Pl, Pole 2	1.13°	○	19°C		🟢	🔴	🔔	♥	🔋	☰
Crikit 385	TCS18, Castle St / Lower Stuart St, Pole 1	290.57°	○	16°C		🟢	🔔	♡	🔋	☰	
Crikit 384	TCS15, Castle St / Fredrick St, Pole 4	350.86°	○	28°C		🟢	🔴	♥	🔋	☰	
Crikit 383	TCS15, Castle St / Fredrick St, Pole 4	354.19°	○	14°C		🟡	🔴	♥	🔋	☰	
Crikit 382	TCS15, Castle St / Fredrick St, Pole 4	192.67°	○	19°C		🔴	🔴	♡	🔋	☰	
Crikit 381	TCS14, Cumberland St / Albany St, Pole 8	26.9°	○	24°C		🔴	🟢	🔔	♥	🔋	☰
Crikit 380	TCS13, Great King Street / Albany St, Pole 6	13°	○	26°C		🟢	🔴	♥	🔋	☰	

AddInsight

- Leased 44 Bluetooth sensors from Opito
- Majority installed on Tuesday / Wednesday
- Sharing an AddInsight licence with Hamilton
- Will extend as budget permits
- Particularly interested in current travel times through the CBD in advance of major disruptions, the before data



Variable message signs

- Have ordered 48 variable message signs from Opito
- Will be installed around 12 schools
- Act as:
 - Variable speed signs, 40km/h during drop off / pick up times
 - Speed feedback signs
 - Always collecting speed / vehicle numbers
- Mixture of mains and solar powered

Barnes Dance crossings

- Now have 12 within Dunedin City including 2 on State Highway 1
- 6 on Princes Street / George Street (main street)
- 2 on state highway part of cycleways project

Smart Parking signs

- Ability to change parking for special events /seasonal changes and varying demands through the day
- Optimise parking
- Current uses:
 - Princes Street (old bus stops)
 - Moray Place (First Church)
 - Royal Terrace (Olveston House)



Smart Parking signs

Calendar

Start Date: 2019-12-04 Days: 7

	2019-12-04	2019-12-05	2019-12-06	2019-12-07	2019-12-08
Group	Wednesday	Thursday	Friday	Saturday	Sunday
Moray Place First Church	Cruise	Standard	Standard	Standard Saturday	Cruise
Royal Terrace Olveston	Cruise Early Tour	Cruise Early Tour	Std Early Tour	Standard Saturday	Cruise Weekend
Princes Street	P20 Coach	P20 Coach	P20 Coach	P20 Coach	P20 Coach
DCC Office	Standard	Standard	Standard	Standard Saturday	Standard Sunday
Comments	Coral Discoverer	Norwegian Jewel & C:			Celebrity Solstice

Save

Smart Crossing



Smart Crossing

- Will be installing a smart crossing from Smart City Streets.
- Utilises:
 - 2 x FLIR TrafiOne Ped Detector cameras
 - 16 x IPL on Road Yellow LED markers



Video Detection system

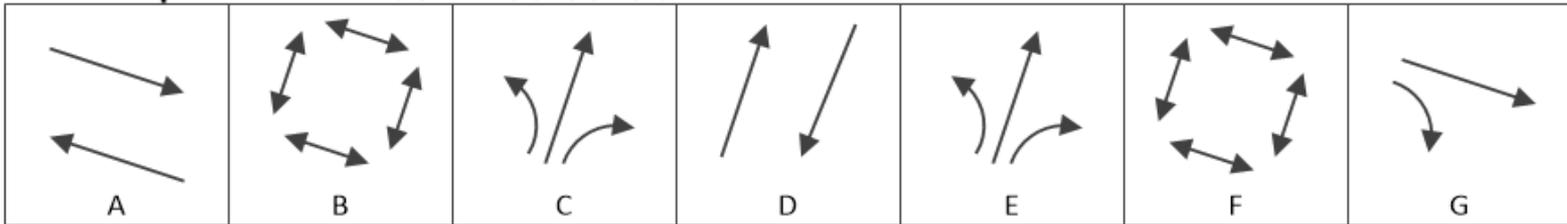
- New city bus hub
- North end has a single departure lane, unable to detect turning vehicles
- Right turning buses causing issues:
 - Block intersection
 - Turn late in amber / red



Video Detection system

- Considered options, including RFID tag in buses.
- Chose Siemens video detection system.
- Features additional pole mounted camera and edge processor in cabinet.
- Detects:
 - Bus in desired area
 - Bus has right indicator activated
 - Bus destination sign is recognised (OCR)
- On detection activates an output into controller, places demand for right turn phase.
- Runs either a lead or lag phase.

Phase sequence: A – B – (C) – D – (E) – (F) – (G)



Video Detection system

No Bus Detected



Cycleways

- Recently completed
- NZTA project
- Physically separated cycle lane
- Runs from Queens Gardens to Botanic Gardens
- Signals changes
 - 20 sets of signals
 - New CIS & software
 - Almost all physically changed (lanterns and mast arms)
 - 2 new sets of signals
 - 2 Barnes Dance crossings

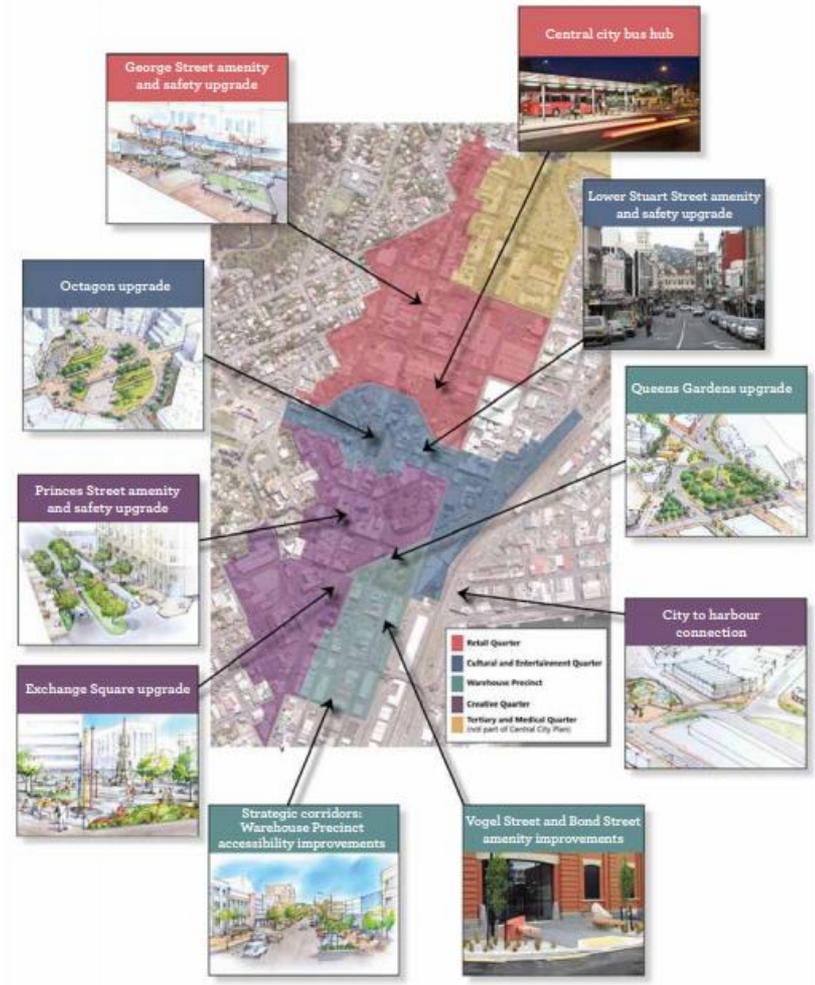
Challenges

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the right side of the slide, creating a modern, layered effect. The rest of the slide is a plain white background.

Central City Upgrade

- Includes:
 - Potential George Street one-way (5 sets of signals)
 - Moving traffic onto Filleul Street (1 current, 1 new set of signals) or Great King Street (4 sets of signals)
- Travel time and O-D data invaluable (AddInsight)

Key transformational projects



New Dunedin Hospital

- University / Polytech area
- Adjacent to State highway 1
 - Two parallel one way roads
 - 11 sets of signals



New Dunedin Hospital

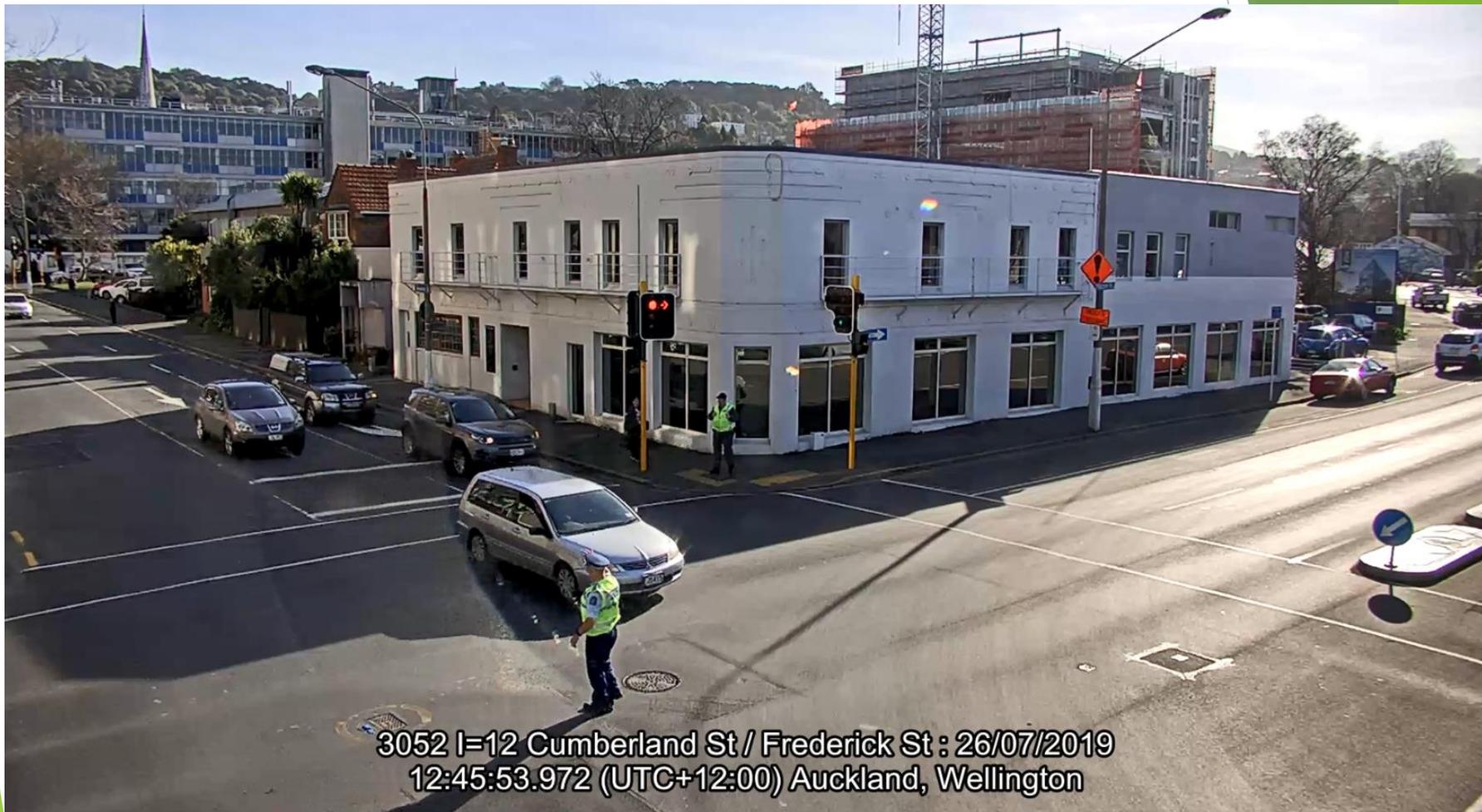


Shaping Future Dunedin Transport project

- Coincide with major construction projects
- Look at how traffic flows within Dunedin
- Options for future:
 - One way system?
 - Size / capacity of state highway through the city?
 - Etc...

People





3052 I=12 Cumberland St / Frederick St : 26/07/2019
12:45:53.972 (UTC+12:00) Auckland, Wellington



3044 I=13 Malcolm St / Albany St : 26/07/2019 13:03:30.454 (UTC+12:00) Auckland, Wellington

