

## SARCC need



**YOU!**




## AGM 2022


### ANNUAL GENERAL MEETING

Every year we need members to volunteer to administer your recreational cycling club. Nominations for election to President, Treasurer, Secretary, Rides Coordinator and the 3 executive members can be by email from the member standing for election and be sent to [sarccexec@gmail.com](mailto:sarccexec@gmail.com) up to 7 days prior to the date of the proposed meeting. We also call for nominations from the floor of the AGM meeting.



The AGM is the event that invites you to stand up and be counted to help make tours and rides happen. SARCC AGM will take place at [Clarence Park Community Centre, CLARENCE ROOM 7.30PM. 24<sup>TH</sup> NOVEMBER 2022](#). KEEP THE EVENING FREE PLEASE! The agenda details and reports will be posted separately, it is intended to keep the AGM short, and we will reveal an interesting guest speaker.

**Ride With GPS**  try it you will not be disappointed!

Consider other club members: If you have COVID or FLU symptoms or might be **infectious, please, don't attend SARCC rides or events** SARCC, recommend you **check the web prior to attending any ride** or event - rides, tours and events are correct at time of Print only SARCC promote, create a **RideWithGPS** route, then  a link to a RideWithGPS route by email to: [sarccrwgps@gmail.com](mailto:sarccrwgps@gmail.com)

[RWGPS Events calendar](#)  please link

### Sunday Pleasure Rides:


#### November 6th 2022 Semaphore Ride

Meet Victoria Square 10am. Easy ride to Semaphore for BYO lunch. Return via linear park. Coffee at Troppo's in Whitmore square. 40km. Angela R 0418 852 659

#### November 20th 2022 Exploring the Adelaide Hills


Meet at 10.00am at Charleston Centennial Park. Riding on the country back roads around Lobethal, Gumeracha, Birdwood and return. Bring your own lunch or buy. Steep hills (maximum gradient 9%), 648m elevation gain, 41km. For Hybrid or Mountain bikes. Geoffrey C 0419838 551

**Thursday Rural Rides** Thursday rides are regularly 20+ riders; in hill topography that creates a challenge. To compensate each ride will have a 2<sup>nd</sup> leader so we can split into 2 comfortable groups if needed. - [Sharon Moyle](#) Thursday Ride [Organiser](#)

Nov 3 <sup>rd</sup>	David	0413 390 371	10 a.m. <a href="#">Echunga Oval</a> .	Some unsealed Roads & Tracks	 link
Nov 10 <sup>th</sup>	Trevor	0401 717 031	10 a.m. <a href="#">Woodside Pool</a> car park	Some unsealed roads	
Nov 17 <sup>th</sup>	Dan	0427 526 846	10 a.m. <a href="#">Woodside Pool</a> car park	Some unsealed roads	
Nov 24 <sup>th</sup>	John G	0435 602 392	10 a.m. <a href="#">Woodside Pool</a> car park	Some unsealed roads	

**PERFECT Ride** Sunday November 13th., [Start Waterloo](#) following the Light River, crossing the Tothill Range about 4 km North of Tarnma. Eastward to the escarpment overlooking the Plains 12 km northwards along the top of the escarpment (magnificent views for this whole 12 km). Left before Inspiration Point returning to Waterloo via Webb and Quin Gaps.

### SPECIAL Events

**Friday November 18<sup>th</sup> 2022** Meet at Gawler Central 8.30am Ride 40 km Barossa Trail to Angaston climbing 300 m @ ave 14 kph with stops its noon lunch at Angaston, return is 40 km downhill probably 4 to 4.30 at Gawler (it's all trail - elect leader on arrival)  link



**P.L.E.B.S.** Please link to web site to understand the concept or contact Peter Harrison 0448 364 138




### TOURS:

#### A cycling and canoeing week at Barmera Sunday Dec 4 to Friday 9 December

Local bike rides AM some dirt about 30+ km different rides each day Canoe trips PM. One trip with cars to top of lake, canoe 8k back to camp and cycling back to pick up cars. Alan & Mary are going to Barmera soon where will sort out a nice area for us to camp and speak to the managers about the dates. There are also plenty of cabins there. Please, contact Alan Capell 0418 855 568 with a text message with name and contact details if interested.



New Zealand Tour 13<sup>th</sup> February 2023 hasn't vanished! The tour is full, and communications are direct by organisers to participants. But  to be informed [link here for Tour Details](#) and Link to [Ride with GPS detail of the New Zealand Routes](#). For further information or to express a request to be a standby, contact SARCC Tour organisers [<sarccclub@gmail.com>](mailto:sarccclub@gmail.com) 

 **High Country Tour postponed to 24<sup>th</sup> March to 5<sup>th</sup> April 2023** Expressions of interest to ride a minibus & trailer tour of High-Country will be called for in Mid-November with a deposit. The sequence of the planned routes as on  [Ride with GPS](#)  Link to View may change with consultation. The Tour will be in a 12 seat minibus with SARCC Trailer and in cabins at strategic accommodation parks.

## Q&A WHAT TO DO IF YOUR PEDELEC IS BROKEN? thanks Bruno

Your Pedelec is a bicycle, but it has a motor, battery, and electronic controls that standard bikes do not have. Pedelecs are either retro fitted with a kit to become motorized or can be purchased new as electric boosted. All Pedelecs require pedalling. Pedelec systems [either use a torque sensor or commonly a cadence sensor](#). A torque sensor reacts to how hard you pedal and automatically adjusts power assistance accordingly. A cadence sensor simply reacts to whether you are pedalling. Once you start pedalling, there is a two second delay, and then the motor starts up. With a Pedelec system using a cadence sensor, the level of assistance is controlled by the level of assistance you have chosen on the console, not by how hard you are pedalling. Torque sensors are more automatic and can be considered more advanced, some people say they provide a more natural feel while cycling by mimicking your exertion level.

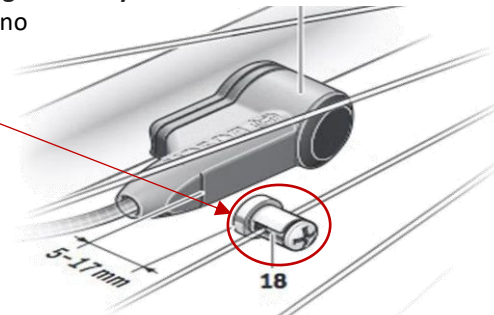
**B**roken eBike? Start with the obvious... have you installed and connected your charged battery and turned the controller on!

When your electric bicycle controls are turned on and your screen reads "error" or no pedelec assistance flows to the pedals. We recommend to then check that the magnetic wheel rotation (revolution) counter knob that is affixed to a spoke of the rear wheel actually passes as close as practical to its pick-up coil device that is mounted inside of the horizontal fork (chain stay) that holds the rear wheel's hub when the rear wheel turns at each and every revolution.

If there is not a narrow aperture between magnet and pickup there is not an electric current developed by them to be further transmitted by wiring into the complete control system connecting battery to motor and ultimately there is no power assist to the pedals when the rider applies effort to the pedals.

The wheel revolution counter function is the mechanism that tells the Pedelec Control unit the speed of the bicycle by a simple algorithm of multiplying the embedded circumference by the number of rotations per minute. Obviously, the pedelec needs a wheel rotation counter and an embedded clock to know if you have reached the regulated speed limit allowed for power boost up to 25 kph in Australia. If the revolution counter or embedded clock are not functioning the controller unit has a failsafe that closes off all power boost and displays "error".

The fault can easily be rectified, with the help of a screwdriver, by pushing the out-of-position magnetic knob to the correct position on spoke of wheel and then turning the wheel to alignment with pickup on bike frame and then turn on the control screen and battery to choose the required functions.



Calculation: a 700c wheel with 25mm tyres. Is approx' 680mm diameter. Hence, the circumference would be  $680 \times 3.14 (\pi)$  equals 2136mm for the circumference. Dividing a kilometre by the circumference equals 468 revolutions per kilometre. If the wheel is revolving 200 revolutions per minute that's 427metres per minute or times 60minutes 25.6 kph.

## Q&A Mike Turtur Bikeway Overpass Project [Link](#)

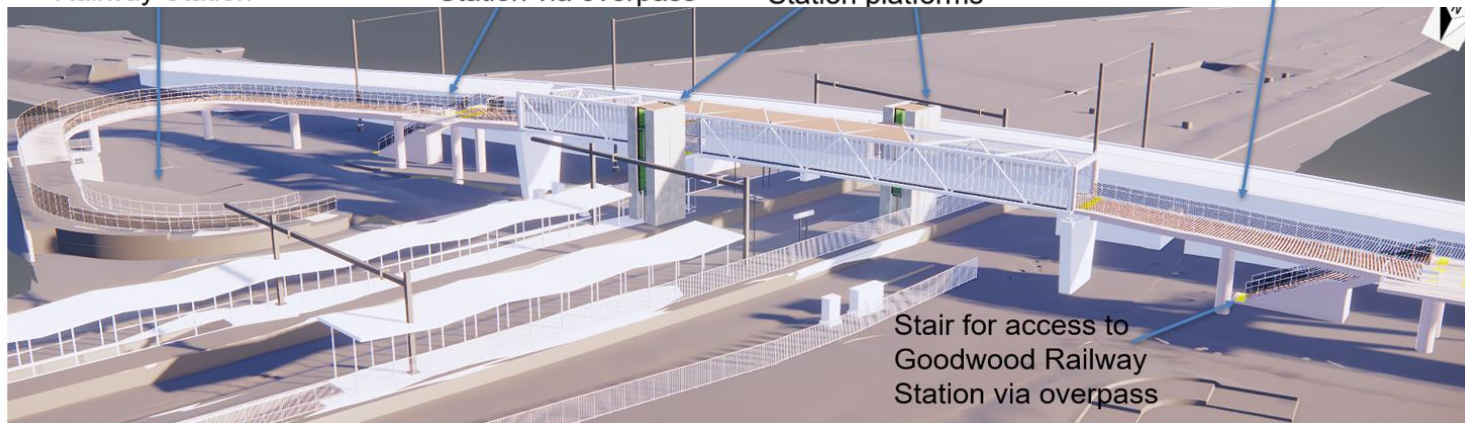
### Goodwood Station

Curved ramp on eastern side of Goodwood Railway Station

Stair for access to Goodwood Railway Station via overpass

Elevators from overpass to Goodwood Railway Station platforms

Straight ramp in Forestville Reserve



The Australian and South Australian governments have committed \$25 million for the design and construction of the Mike Turtur Bikeway Overpass Project. The Mike Turtur Bikeway Overpass Project involves the construction of a Shared Use Path over the rail corridor at Goodwood to improve connectivity and safety for pedestrians and cyclists.

The three objectives of the project are to improve:

1. connectivity for cyclists and pedestrians on Mike Turtur Bikeway and Marino Rocks Greenway
2. access to and across Goodwood Railway Station.
3. Disability Discrimination Act 1992 (DDA) compliant access to Goodwood Railway Station.

The Project will:

- Consult the local community. Twelve Community Reference Group members were appointed. A cyclist, a defender of Forestville Reserve, a City of Unley rep, nine interested local residents.
- Enhance the aesthetics and retain or replace foliage.
- Create employment and dividends for The PTP Alliance together with the Dept of Infrastructure and Transport. [Their mission is to deliver community-based and value-for-money public transport solutions that improve liveability and connectivity for South Australians – delivered safely and with minimal disruption to local communities.]





Two bicycle routes pass through the Goodwood Station location, the Mike Turtur Bikeway is an east-west route crossing the rail line running parallel but from side to side along the tram corridor. The Marino Rocks Greenway runs north-south adjacent to the Seaford rail line. The two bicycle routes intersect on the western side of the rail lines within Forestville Reserve.

Currently, there are [three routes to cross the railway line](#) for both cycleways. There is a narrow walking-only underpass, or to the South 250 m an at-grade controlled crossing at Victoria St, or to the North 310 m an at-grade controlled crossing at Leader St.

The complexity comes from the transfer of Turtur Bikeway from north side (Norman Tce) then to south side (Railway South Tce). That transfer takes place through two narrow tunnel/gateways under the concrete Structure of the tramway overbridge. What this necessitates is the addition of a dropdown ramp to Railway North Tce (parallel with the Railway line) then return through the narrow tunnel/gateways under the concrete Structure of the tramway overbridge on the east side. The circular ramp will facilitate this. The ramps are to be constructed to meet the requirements of Disability Discrimination Act 1992 (DDA), plus elevators to reach station platforms. The disabled access needs are essential and rightfully a priority; but it does add significantly to the cost of the project approximately 60% or \$15 million - however the Authorities will ensure that \$25 Million will be allocated to cycling infrastructure.

All other solutions submitted had various flaws. Local councillors have received objections but that will always be the case. They protest about trees, speeding cyclists, and concrete jungles thus delaying and raising costs. Inevitably the protesters will gain some improvements and then calmly understand the need to provide for sustainable transport and access for all to public transport (not just a shabby steep damp tunnel access). Next will be the deferment for political reasons and debate over steel vs concrete structure. If you have never been in a Community Assessment Group Engagement (CAGE 😊) the following PDFs will enlighten how they proceed.

① [PA RAIL - MTBO - Presentation](#) ② [PA RAIL- MTBO - CRG Meeting 3 Presentation](#) ③ [MTBO CRG Meeting 4](#)

**Q&A** Do South Australian Governments under-fund cycling? *Sadly, SA do underfund cycling infrastructure* 🙄

Yes! and we are too exclusively focused on cars as the future of transport in South Australia:

Cyclists are prevailing in most progressive world cities that have dedicated bike Programs which work actively to make cycling safer and to increase the number of cyclists on the road. [SA Cycling Strategy](#) a lot of words, pictures, graphics and little action.

A Bike Program does no good if it's underfunded. It must have sufficient resources to execute its mission. The United Nations [has recommended](#) that governments dedicate 20% of transport funding to active transport. Sadly, in [Australia most states](#) devote less than 2% to cycling. Also, per capita dollar amounts devoted to active transport are low everywhere (under A\$20 a year). Copenhagen spent A\$30 per capita a year for a decade. With SA population at 1.7 million if we spend AU\$20 per annum per person, we should be committing at least AU\$34 million per annum this year and every year thereafter to cycling spending in South Australia.

It's crucial that the Bike Program be involved in roadway planning so that it can identify problems with bike access and cost-effective ways to address those problems. If a city simply creates a Bike Program but continues its old roadway-building as usual by leaving the cyclists out of the loop, you can't expect much to change. This is so true in South Australia.

Example 1: South Road upgrade with [tunnels and trenches](#) is estimated to [cost > \\$9 billion](#), yet the alternative route for cyclists was cobbled together by a local Councillor. ([view interactive map](#)). The route needs a [dedicated cycleway](#) the length of Dorene Street, a shared path bridge over Daws Road then a dedicated cycleway the length of Jose Street to dual cycleways (no stopping or parking) on Edwards Street and Winston Avenue linking via existing East Ave to the Mike Turtur Bikeway to City all of which will cost less than \$15 million. The alternative is suicidal cycling along the upgraded South Road with its high traffic volume.

Example 2: Parking in bike lanes. Fortunately, few progressive world cities are so short-sighted as to allow motor vehicles to park in bike lanes, but unfortunately some do. They sure do, it is endemic in South Australia.

The bike lane is dedicated for your bicycle use 10 hours per week (some only 7.5 hrs) out of 7 days X 24 hrs = 168 hours per week... 158 hours per week the bike lane is a free car park. OK, I didn't count both sides of the road that's still only 20 or 15 hrs for cyclists and 148 or 153 hrs free car parking. Nothing sends a stronger message that a city doesn't care about bike access if it lets cars park in the one place that's supposed to be for bikes.



**Q&A** How many 18650 batteries does it take to fill my eBike Battery pack? [Which 18650 Battery Is Best For Your Ebike](#)

When LiPo 18650 batteries first became popular, 2.2Ah cells (which are still produced by some manufacturers), was the accepted normal capacity. The highest capacity cells are now at a staggering 3.5Ah. Samsung, LG, Sony and Panasonic/Sanyo all make good batteries. The "18650" name comes from their size. They are 18mm in diameter, and 650mm in height.

The standard voltage of each cell in a lithium-ion battery usually is 3.6V, and the fully charged voltage is 4.2V. When each cell voltage drops under 2.6V, it is time to recharge the battery. If the voltage continues dropping, under 1.5V, the cell will be damaged. The BMS (battery management system) will trigger the over-discharge protection, to stop the battery over-charging or over-discharging.

**Volts:** Volts measure the *force of the electric flow* from the battery to the motor. The more volts a battery has, the more power it provides to the motor. Most e-bike manufacturers use a 36V, or 48V, eBike battery.

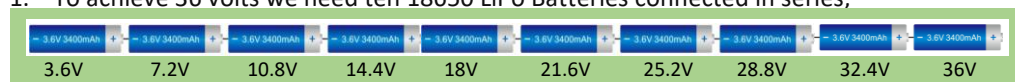
**Amp-Hours:** The other important measurement is the Amp-hour rating, indicating the battery's total capacity and thus affecting the max range. The batteries on modern e-bikes typically have up to around 20 Ah, but 10-14 Ah is the most common number. [A Milli-ampere](#) is one thousandth of an ampere, a measure for small electric currents (mA)

**Watt-Hours:** Watt-hours stand for the total power stored in a battery, factoring voltage and energy capacity. The best eBike battery will undoubtedly have a high Wh rating. **e.g., Volts (V) multiplied by Amp-Hours (Ah) equals Watt-Hours (Wh)**

**Capacity** Given the choice, everyone would choose a battery with the highest capacity. Capacity is measured in milliampere-hours (mAh) and this tells us how many milliamps we can draw from the battery for how many hours. However, capacity comes at the cost of current rating (Continuous Discharge Rating = CDR). Inside of each cell, they can only fit so much material so you often have to

choose between a high capacity battery or a high current battery. Take for example the LG HB6 which has a CDR of 30 A but only a capacity of 1500 mAh. On the other end of the spectrum is the Panasonic NCR18650B which has a CDR of only 5A and capacity of 3400 mAh. Luckily, we have many providers of LiPo 18650 batteries with CDR of 20A and a capacity from 3000 to 2500 mAh

1. To achieve 36 volts we need ten 18650 LiPo Batteries connected in series,



2. To achieve the Watt Hours we need to connect sets of ten 18650 LiPo Batteries in parallel.

While the diagram batteries have 3400 m Ah printed on them, I have calculated the Wh on realistic 3000 mAh to 2500 mAh.

Answer:- **30** X 18650 batteries can yield between 270 Wh & 342 Wh and **60** batteries can yield between 540 Wh & 648 Wh

The quality of the battery is what varies the answer, as does the allotted space for the Battery.

Also we can have 21700 size cells with 4.9 Ah each that would further amend the answer.



P.S. "18650" is a specific size of rechargeable battery and LiPo is the chemicals that comprise the battery (lithium-ion polymer).

## Q&A How long do 18650 Batteries last?

Most modern 18650 batteries have a typical cycle life of **300 - 500** (charge, discharge cycles). A whole charge cycle in this context is defined as a full battery being drained and charged to full capacity again. Up to 3 top-up charges equal a cycle. When treated kindly up to **1000 cycles** are achievable. When in high-amp or high-drain situations, this can decrease substantially to 200 cycles. If you go over the maximum discharge current limit (A) you can decrease the cycle life all the way down to 50 cycles. What does that mean to your bicycle if you use your ebike twice a week and fully deplete then recharge each time that's 100 cycles annually that would mean you have between three and five years of life in your ebike battery. But if you only charge once a week because each use only took 25/30% of your batteries capacity you could extend the life of your battery to ten years. Most eBikes have reliable discharge control electronics called Battery Management Systems BMS built-in that prevent over discharging or charging.

Internet advice: [Extending the life of your battery](#) <sup>Link</sup>

① Charge it less often i.e., only charge when there's 30 to 50 percent of capacity remaining, ② then only to 90%.

③ Never more charge than 4.2 V in any cell ④. never deplete the batteries below 2.5V in any cell

⑤ Charge at room temperature 15 to 22 °C ⑥ Avoid using or storing below zero or above 45 °C

Think of electric bike batteries as a "Goldilocks" type of device. It doesn't like to get too hot, neither does it like to get too cold, it prefers temperature ranges that are "just right". That includes temperatures ranges for charging between 15 °C to 22 °C, typical use while riding ideally around 20 °C, and storage between 5 °C and 20 °C. I.e., don't leave it in your car in the sun.

Most of us don't have a smart charger that can be set to charge to optimum speed of charging and optimum voltage. We need to rely on our provided charger and built in Battery Management Systems BMS. At least we can abide by temperature recommendations and don't charge every ride maybe top it up the night before a big ride where having a full battery is essential. Avoid using Turbo option (high demand) for lengthy periods.

## Q&A How should we write units of measure i.e., Symbols?

Why are some units in upper case and some lower case? If the unit is named for a person, the unit word (watt) is lower case, but the symbol (W) is upper case. This general rule applies to many SI units (newton, joule, watt, kelvin, volt, ampere, ohm, see list attached). Otherwise, the symbol is lower case.

Okay, what does Si stand for? International System of Units (SI), French *Système Internationale d'Unités*, international decimal system of weights and measures derived from and extending the metric system of units. If you think Accountants are boring try reading the scientist's daily handbook it's a summary that is only 126-pages long [SI-Brochure-9-EN.pdf](#) <sup>Link</sup> - The International System of Units (SI).

Spacing? The [International System of Units \(SI\)](#) prescribes inserting a space between a number and a [unit of measurement](#) (the space being regarded as an implied multiplication sign) but never between a prefix and a base unit; a space (or a [multiplication dot](#)) should also be used between units in compound units. *This is something I never get right – probably several examples in these articles where I got it wrong.*

**5.0 cm**, not 5.0cm or 5.0 c m or 5.0 cms; **45 kg**, not 45kg or 45 k g or 45 kgs; **32 °C**, not 32°C or 32° C; **20 kN m**, not 20 kNm or 20 k Nm

As an aside, it promotes better understanding and good communication to avoid acronyms.

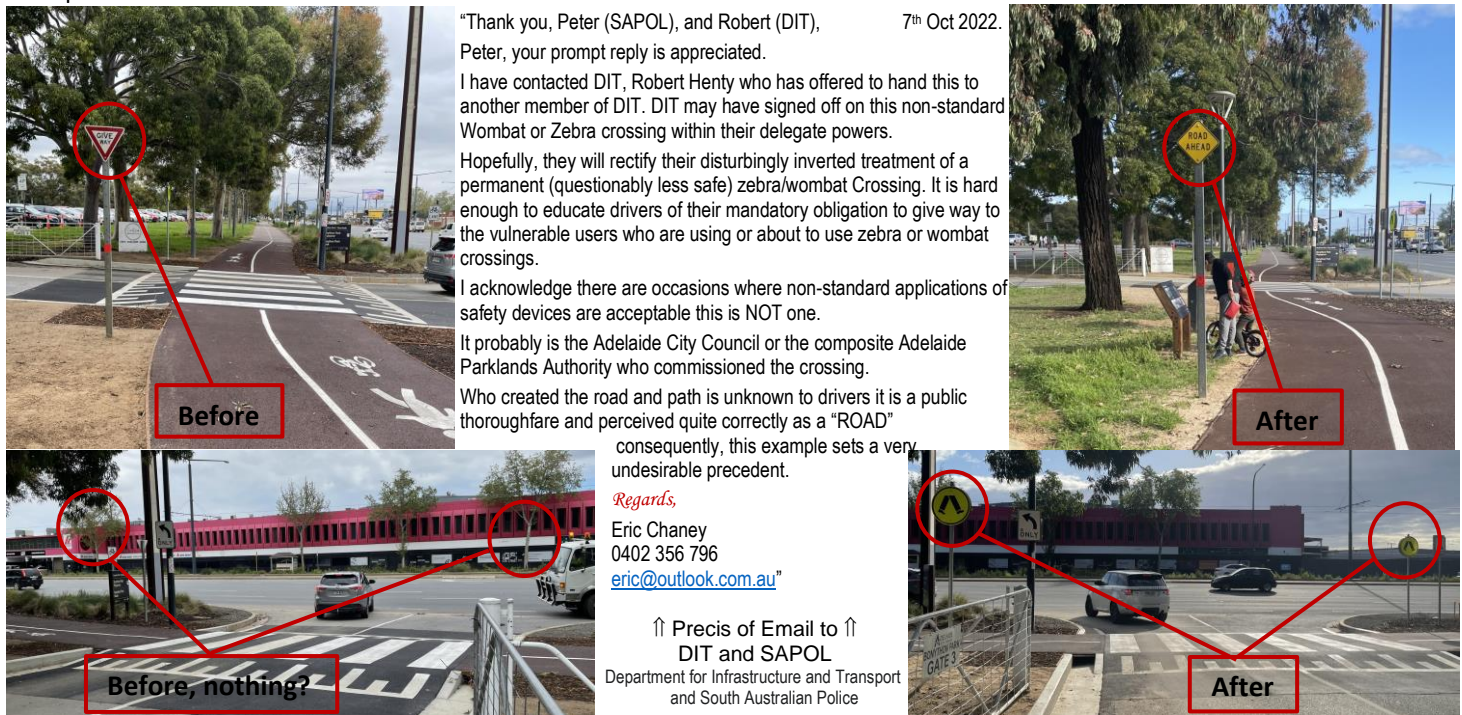
Civil Servant's language is dominated by acronyms extensive use with the belief that it is an efficient way of communicating. Nobody can remember all those acronyms and people don't want to seem dumb in a meeting, so they just sit there in ignorance. It is a form of unacceptable arrogance. Before you use an acronym think about their origins. It was used to deliberately conceal and make it harder for people to understand the message. It is desirable to use abbreviated labels for all units of measure i.e., kg, kph, lb, ft, cm.

But not acronyms you might be misinterpreted... E.g., **NFI**, **WTF** means: For Example, **Not** **Formally** **Invited**, **Wasn't** **That** **Funny**.

SI Unit Name*	Unit Symbol	Person (birth-death years)
ampere	A	André-Marie Ampère (1775 - 1836)
becquerel	Bq	Antoine Henri Becquerel (1852 - 1908)
(degree) Celsius	°C	Anders Celsius (1701 - 1744)
coulomb	C	Charles Coulomb (1736 - 1806)
farad	F	Michael Faraday (1791 - 1867)
gray	Gy	Louis Harold Gray (1905 - 1965)
henry	H	Joseph Henry (1797 - 1878)
hertz	Hz	Heinrich Rudolf Hertz (1857 - 1894)
joule	J	James Prescott Joule (1818 - 1889)
kelvin	K	Lord Kelvin (William Thomson) (1824 - 1907)
newton	N	Sir Isaac Newton (1642 - 1727) <sup>2</sup>
ohm	Ω	George Simon Ohm (1787 - 1854)
pascal	Pa	Blaise Pascal (1623 - 1662)
siemens	S	Werner von Siemens (1816 - 1892)
sievert	Sv	Rolf Sievert (1898 - 1966)
tesla	T	Nikola Tesla (1856 - 1943)
volt	V	Alessandro Volta (1745 - 1827)
watt	W	James Watt (1736 - 1819)
weber	Wb	Wilhelm Eduard Weber (1804 - 1891)




Example:



The above is an instance of constructive criticism that has provide a correction to a hazard. A Zebra crossing painted at the road access to Bonython Park was equipped with Give Way signs facing the pedestrians/cyclists thus conflicting with the law and purpose of the crossing. The correction may also set a precedent for park entry roads over shared paths. You can make a difference if you politely speak up with requests and suggestions to correct issues that you observe that are incorrect as to the laws or create danger to vulnerable users.

### The Law: Zebra Crossings & Wombat Crossings

"Zebra crossings have white parallel stripes painted on the road with pedestrian crossing signs and may include two yellow alternating flashing lights. Drivers must give way to a pedestrian or rider of a bicycle on or entering the crossing and must drive at a speed which allows them to stop safely before the crossing if necessary."

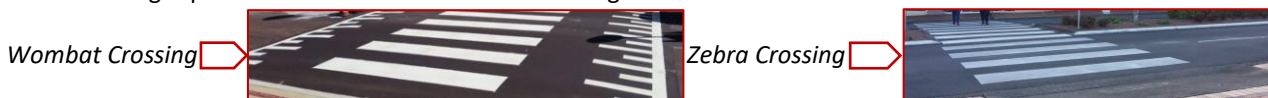
The result is a positive and desirable correction but the alert signs are a bit feeble.  It is time for DIT to invest in LED Solar Belisha beacons to alert traffic to all Zebra crossings especially where there is limited road surface to paint zig zag caution lines on the road prior to the crossing ~~~~~.

A Wombat crossing is a Zebra crossing on a speed hump.

Speed Hump markings in car parks are yellow and black.

Speed Hump markings on-road are white piano keys style.

Piano Key markings when used on an elevated Wombat crossing creates some confusion and has potential to be less safe because the driver does not recognise the Speed Hump as a Pedestrian crossing hence the need to use Solar LED Belisha light poles at all Zebra and Wombat Crossings.



### This month's video entertainment: (Some humour from members – thank you)

I have many hidden talents.  
Just wish I could remember where I hid them.

1st April humour  
**double click & enjoy**  
Then [Undo the fake](#)

VIDEO-2021-04-17-0  
9-53-00.mp4

**ARE YOU SWEATING WHILST PUTTING PETROL IN YOUR CAR FEELING SICK WHEN PAYING FOR IT, YOU YOU HAVE GOT THE CAROWNERVIRUS**

I visited a monastery and as I walked past the kitchen I saw a man frying chips. I asked him "Are you the friar?" He replied "No, I'm the chip monk..."

**GRANDMA!**

**IT'S BETTER TO GROW OLD WITH A SENSE OF HUMOR THAN TO GROW OLD WITH NO SENSE AT ALL**

**Zebra Crossing**

↑ I couldn't resist the humour 😊 ↑

**IN YOUR MIND :**

FETCH MY EMAILS!  
NAVIGATE TO JOHN'S HOUSE!  
SHOW ME THE NEWS!  
SEND THIS PHOTO TO LYN!!  
Y-Y-YES MASTER

**IN REALITY :**

CHARGE ME!  
GIMME SOME WIFI! NOW!  
NEW EMAIL! READ!  
ANSWER THIS CALL!  
A RESTAURANT! CHECK IN!  
Y-Y-YES MASTER

OK, herewith three Tech videos:

[Which eBike Motor is Best?](#) the pros and cons of hub v mid motors

[The cheap solar-powered car | SONO SION](#) the Family Urban Utility transport i.e., FU<sup>2</sup>.

[The Game-Changing solar Electric Car](#) The intercity speeder for two, it's a reborn concept.