

What's the difference?

Road maintenance is like painting your house on a regular basis to prevent the weatherboards rotting. AT as part of Auckland Council, must be sensible with spending.

Chip seal



Small stones and sharp-edged rocks are used, sourced mostly from quarries with pure volcanic materials, eg andesite and basalt rock. They must be dense, strong and not slippery when wet.



Economical, flexible and hardwearing
Provides an adaptable, cost-effective and safe surface for road users.



Used on roads with less than 10,000 cars per day



Approx 13-17 years life span



Prevents water damage
Mainly used to prevent water entering and damaging the underlying foundation layers



10 x better for the environment vs Asphaltic concrete



Most common type of road surface in New Zealand



Monitored to make sure it continues to perform
Over time, the stones gets pushed more into the underlying bitumen and the surface becomes smoother, like an asphalt surface

Asphaltic concrete (AC)



Used on roads with more than 10,000 cars per day
Areas where lots of people drive or walk e.g. around Schools, Hospitals, Shopping centres, State Highways (Motorways) and on some very narrow and steep roads



Approx. 15-20yr life span
Sometimes underlying ground/pavement conditions make using asphalt impractical, so chip seal is used.



4-5 times more expensive
Waka Kotahi NZTA only subsidise AT 50% of the asphalt on roads. If a road has less than 10,000 cars per day and asphalt is used, then AT don't receive help with costs.



Not very waterproof compared to Chip seal unless used in 3x normal thickness



Larger carbon footprint than chip seal.
Approx 10 x higher as more bitumen and metal are used and can cause air pollution especially in hot weather.



Smooth ride for people in vehicles and on bikes and also means less vehicle maintenance costs.



What's the chip seal process?

- 1 Minor repairs are carried out throughout September, October and November. These patches are called pre-seal repairs.
- 2 Our team will send a letter to notify residents about a week before work starts. The chipseal work is generally completed within a day.
- 3 Hot bitumen is sprayed and stone sealing chips are spread and rolled in.
- 4 Traffic is then allowed on the road to bed the new seal.
- 5 Small stones (chips) are regularly swept away and road marking repainted if needed. Temporary traffic management will be removed.
- 6 As many as three additional sweeps may follow in the next 6-9 months to remove loose chip.

Scan this QR code for an example of the Chip seal process with with one of our contractors, Fulton Hogan .



What to do when we're chip sealing



Āta Haere – Slow down

Stones can be flicked up from the road surface and hurt people passing by or damage vehicles – especially windscreens. Hot bitumen can also splash up and stick to your paintwork.



Pūrongo – Report a problem

If you get into difficulty at a chip seal site, please park up in a safe location and inform the site supervisor of your concern. The site supervisor will be able to assist you and log your report.

FAQs

Why do you reseal in summer when everyone is out and about and the roads are busy?

Warm temperatures and dry air help the new seal to stick to the existing road. If we worked in winter, the cold ground would harden and crack, plus stones could pop out if exposed to cold weather within four weeks of application. Then we'd just have to do the work all over again – causing you more inconvenience.

Also, most Aucklanders take time off work in January and February, which means we can avoid delaying thousands of commuters and causing peak time traffic jams.

Why not chip seal all year round?

Bitumen, the glue that holds the chip on, is a liquid when it's hot and hard when cold. So we apply chip seals at the hottest time of the year, to ensure that the new seal will be strong and long lasting. If the road is wet, it will affect the bond between the bitumen and the road. It can crack in cold weather, which can lead to chip seal failures.

Why is no one working on the resealing, yet the lane or road is still closed to traffic?

If the road looks brown, dusty or muddy then it's likely that we're waiting for the new seal to set before we let cars, trucks and bikes drive over it and churn up the newly laid road surface.

Why can't you do this work overnight?

We still need the ground to be warm, so this has to be during the day, to help the seal set and stick to the road surface.

How does this work benefit me?

- ✓ A smooth, skid-resistant surface free of pot holes and slippery sections helps reduce the risk of crashes .
- ✓ Keeps you and your loved ones safe as you travel around Tāmaki Makaurau.
- ✓ If we are reconstructing the road, which involves taking the top layer off strengthening it and relaying it, then it will give the road a longer life.

We understand maintaining our road network may cause disruptions and appreciate your patience while our team works in your area.

Ngā mihi - Thankyou

He pātai? Any questions?

Please contact us on **09 355 3553**

Follow Auckland Transport



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Auckland Transport Road Maintenance



Why we're chip sealing your road

AT.govt.nz/reseal



Kia Ora,


From time to time, we contact residents about proposed chip re-seal maintenance due to take place in your street.


You may have some concerns about whether or not we have any alternative options available.


These streets and roads are due for re-seal under our Asset management plan and we want to give you a bit more information on our road maintenance programme.


Why we resurface roads


Auckland Transport is responsible for the management of approximately 6,900 km of sealed roads (both urban and rural) in Tāmaki Makaurau and these are what we need to consider:


 Road surfaces don't last forever and deteriorate over time.


 Wear and tear from traffic, trenching work for underground services and oxidation of the surface from sunlight all take a toll.


 We have to ensure the underlying foundations don't deteriorate, otherwise its expensive and disruptive remedial work.

 The seal on a road is like painting your house – it keeps water out of the structure underneath. Like paint, the seal breaks down over time and starts to let water in.

 When the surface of a road starts to break down, it indicates that it's time to re-seal. The ideal time to re-seal is just before any damage occurs, so your road will look to be in good condition when we complete the re-seal.


 Roads are generally resurfaced with chipseal, except where the traffic volumes or pavement conditions justify otherwise.


 Roads that have previously had asphalt surfacing may be resealed with chip seal.


 On average, we resurface around 10% (about 68km) of Auckland roads every year

How we select the resurfacing treatment for your street

 Sites are selected based on age and condition of the street.

 We generally chipseal every 10-15 years, depending on the condition on the road.


 Chipseal renewals are completed over summer (between November and March) when there is less traffic on the roads and when sunny and dry weather is more likely.


 Warm air and ground temperatures are essential to get the best results.


We carry out two surveys in your area


1 We assesses the condition of the existing surface and record things like cracking, potholes, broken edges and patching.


2 Then we measures road 'roughness' – using a number of lasers attached to a vehicle.

 These surveys are entered into our road assessment and maintenance management system which helps to identify which sections of the network need waterproofing and which need reshaping.

 A benefit/cost analysis takes into account traffic volumes, pavement loadings, and the results of the 'roughness' survey

 Waka Kotahi NZ Transport Agency provide nearly 50% of the funding for Auckland's road resurfacing programme each year.

 AT has an obligation to ratepayers and taxpayers to ensure that the best engineering options and the most cost-effective solution is chosen in each case.

 Most of our suburban streets have a flexible structure requiring periodic waterproofing – and chipseal is the best engineering solution for this.



Road Surface types

We use Reseal Guidelines to help choose the type of resurfacing treatment to be used.

This ensures roads are consistent across Auckland, in line with normal practice throughout New Zealand and reflect the available funding.

Chipseal

- Is a layer of sprayed bitumen followed by one or two layers of chip (crushed stone) rolled into the surface.
- Tends to be used on roads with lower volumes of traffic, which are less affected by heavy traffic.


Asphalt (AC)

- Is a hot-applied mixture of chip (crushed stones) and bitumen
- Used on roads that have high volumes of traffic (i.e. over 10,000 vehicles per day) or areas that have high turning stress (for example, cul-de-sac heads and certain T junctions).

Why Chip seal?

Chip sealing is a very important part of road maintenance


While it's true that chipseal in suburban streets can cause some inconvenience, if we were to use the smoother asphaltic concrete seal, then the cost would be more than 3-5 times more. In the present economic climate, AT can't justify to get asphalt subsidised by Waka Kotahi NZ Transport Agency on more Auckland roads.

 **Improves road safety including maintaining skid resistance providing:**


- A flexible, waterproof, highly skid resistant surface.

- Better road surface grip, it reduces how long it takes a vehicle to stop when braking in an emergency.


- It provides greater texture which prevents vehicles aqua-planing (skidding on water).

 **Waterproofs it and extends the life of the road**

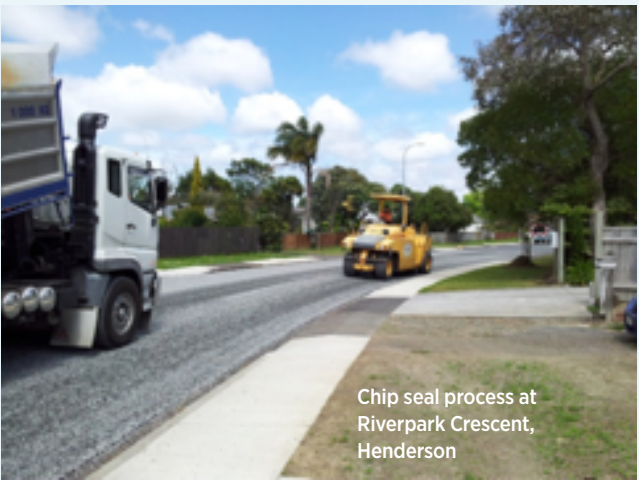
Improves the waterproofing abilities of the road surface which means this preserves the road foundation, prevents ruts forming and extends the life of the road.

 **Provides value for our maintenance dollars**

A dollar spent on chipsealing to prevent structural failures will save \$8 in structural rehabilitation costs later. This means it helps to prevent future maintenance and poor road surface conditions such as cracking or potholes.

 **Cost effective**

Road resealing works involve laying a new chip seal layer on the existing road surface, sweeping the excess chip, and installing new line marking to the finished road surface. Excess chip will be swept within two working days of sealing and will be followed by line marking.



Examples of chip sealing in Unsworth Heights, North Shore, three weeks after the seal went down

