Christchurch Major Cycleway Routes:
Lessons for building a network

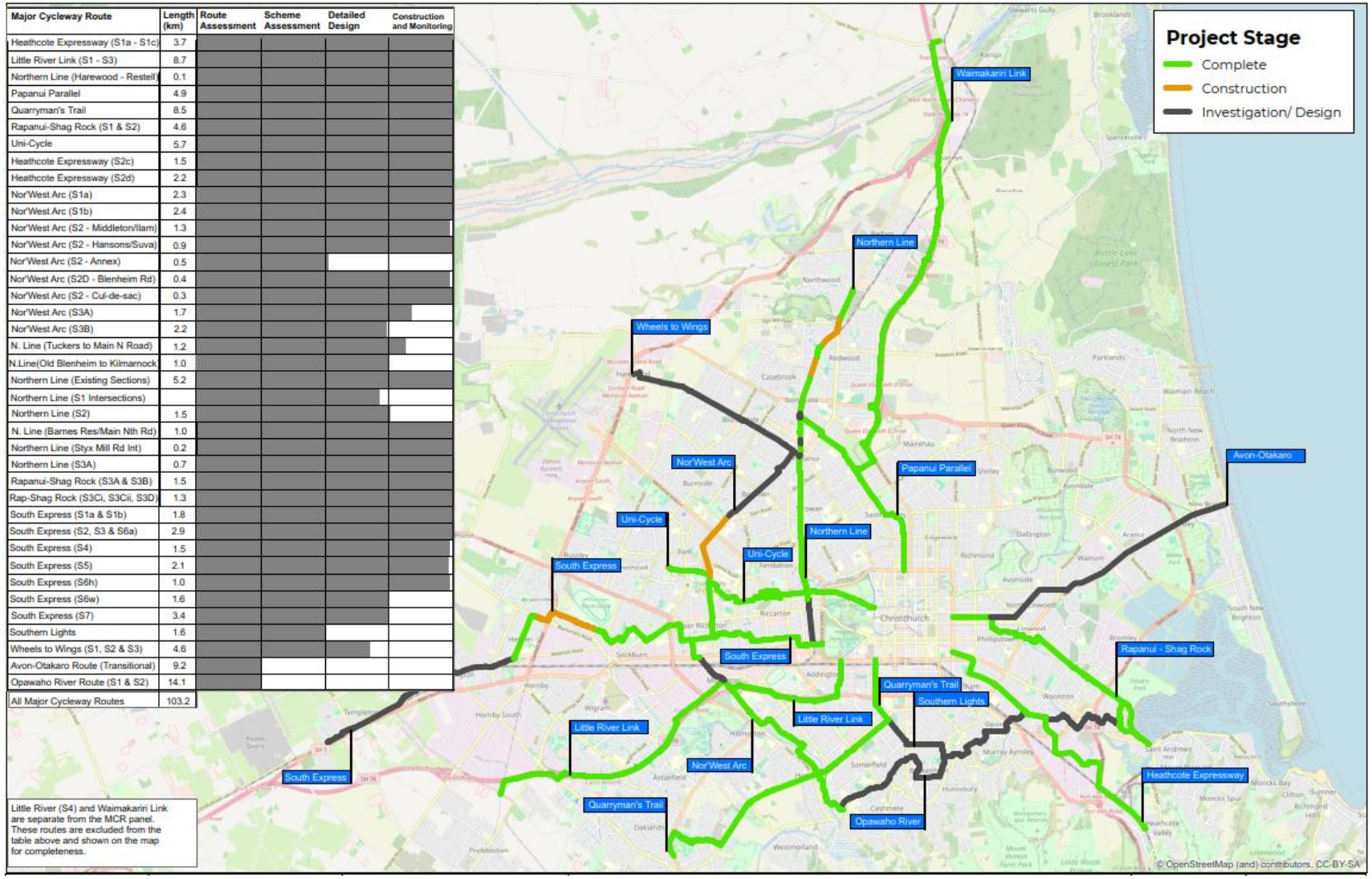
Jacob Bradbury

Christchurch City Council

Major Cycleway Routes - Ōtautahi Christchurch

Major Cycleway Route	Length (km)	Route Assessment	Scheme Assessment	Detailed Design	Construction and Monitoring
Heathcote Expressway (S1a - S1c)	3.7				
Little River Link (S1 - S3)	8.7				
Northern Line (Harewood - Restell)	0.1				
Papanui Parallel	4.9				
Quarryman's Trail	8.5				
Rapanui-Shag Rock (S1 & S2)	4.6				
Uni-Cycle	5.7				
Heathcote Expressway (S2c)	1.5				
Heathcote Expressway (S2d)	2.2				
Nor'West Arc (S1a)	2.3				
Nor'West Arc (S1b)	2.4				
Nor'West Arc (S2 - Middleton/Ilam)	1.3				
Nor'West Arc (S2 - Hansons/Suva)	0.9				
Nor'West Arc (S2 - Annex)	0.5				
Nor'West Arc (S2D - Blenheim Rd)	0.4				
Nor'West Arc (S2 - Cul-de-sac)	0.3				
Nor'West Arc (S3A)	1.7				
Nor'West Arc (S3B)	2.2				
N. Line (Tuckers to Main N Road)	1.2				
N.Line(Old Blenheim to Kilmarnock	1.0				
Northern Line (Existing Sections)	5.2				
Northern Line (S1 Intersections)					
Northern Line (S2)	1.5				
N. Line (Barnes Res/Main Nth Rd)	1.0				
Northern Line (Styx Mill Rd Int)	0.2				
Northern Line (S3A)	0.7				
Rapanui-Shag Rock (S3A & S3B)	1.5				
Rap-Shag Rock (S3Ci, S3Cii, S3D)	1.3				
South Express (S1a & S1b)	1.8				
South Express (S2, S3 & S6a)	2.9				
South Express (S4)	1.5				
South Express (S5)	2.1				
South Express (S6h)	1.0				
South Express (S6w)	1.6				
South Express (S7)	3.4				
Southern Lights	1.6				
Wheels to Wings (S1, S2 & S3)	4.6				
Avon-Otakaro Route (Transitional)	9.2				
Opawaho River Route (S1 & S2)	14.1				
All Major Cycleway Routes	103.2				

Little River (S4) and Waimakariri Link are separate from the MCR panel. These routes are excluded from the table above and shown on the map for completeness.



2011 – Earthquake

2012 – Transport strategy released

2014 – Government announce funding for Urban Cycleway investment

2015 – MCR Programme approval at CCC

2015 – First section of Unicycle opens

2020 – Council receives “Shovel Ready” funding (4 MCRs + Coastal)

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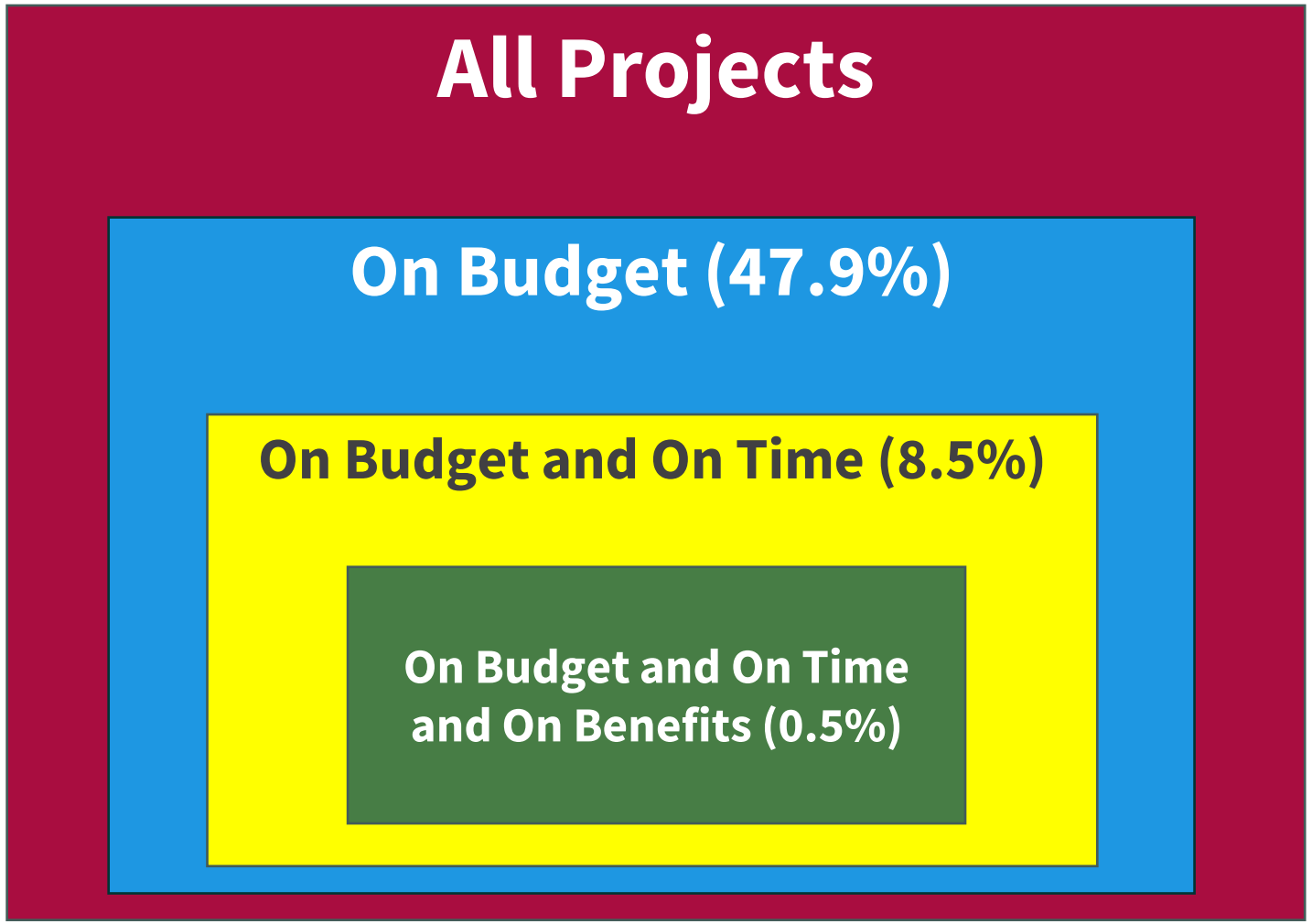
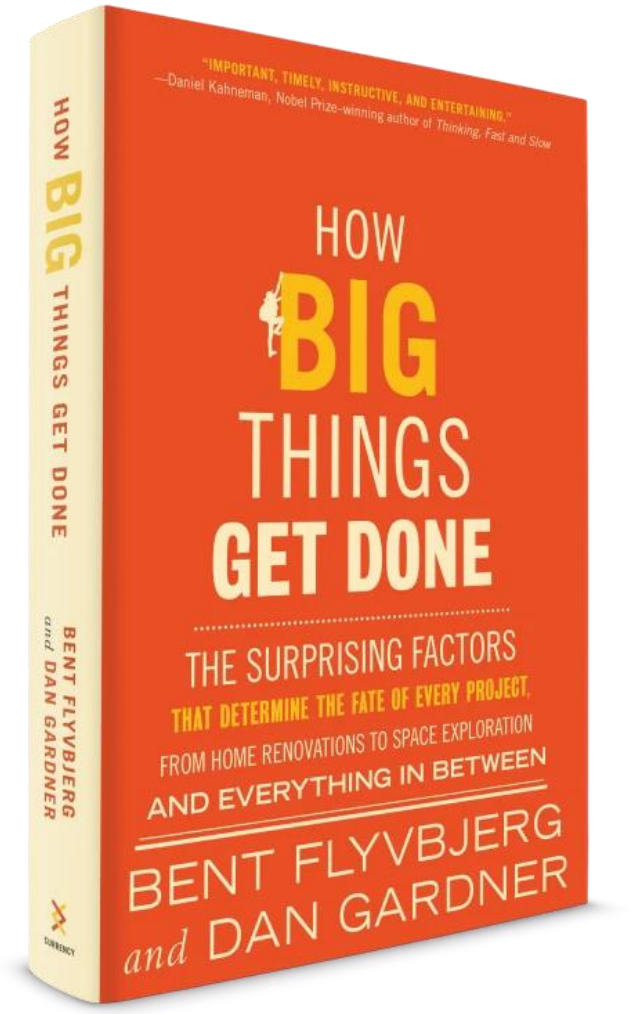
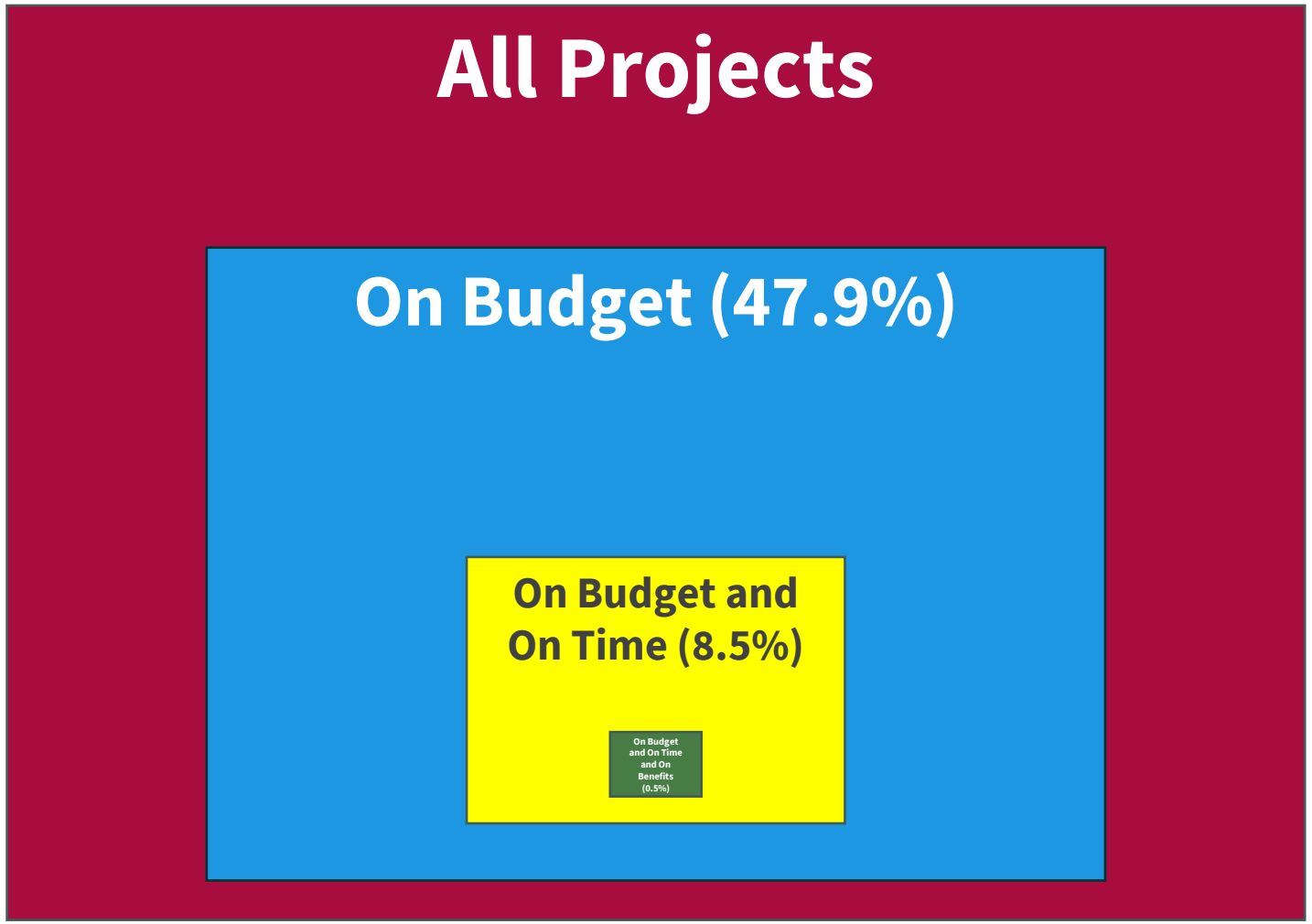
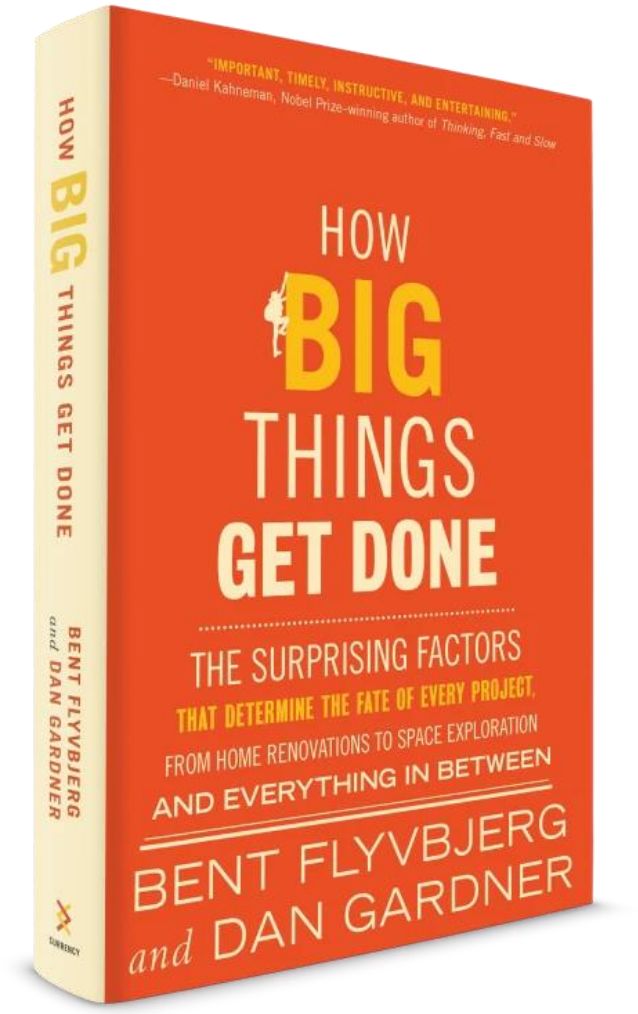
How hard can it be to deliver a project?





How hard can it be to deliver a project (scaled)?





Which projects are hardest?

	Average Cost Overrun (%)
Nuclear storage	238
Olympic Games	157
Nuclear Power	120
Hydroelectric dams	75
IT	73
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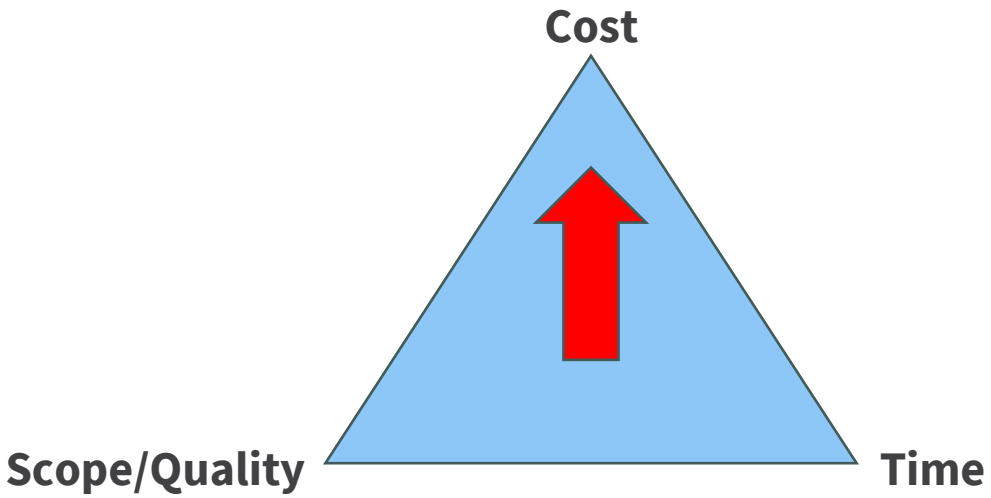
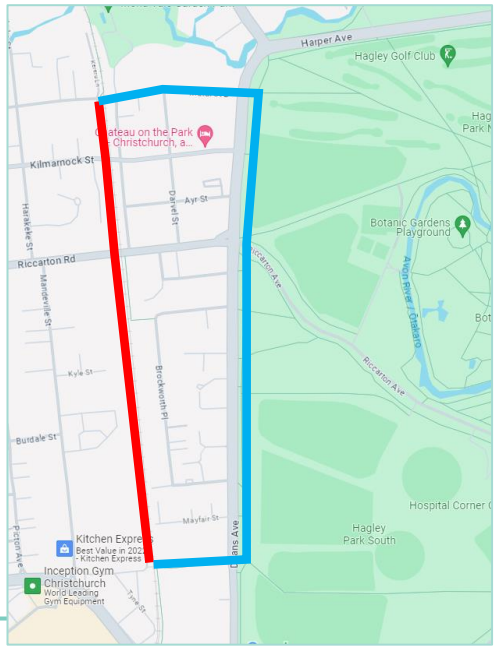
Roads	16
Pipelines	14
Wind Power	13
Energy Transmission	8
Solar Power	1



Where have we done poorly?

Build with Lego	Many bespoke solutions developed rather than standardisation
Watch your downside	Irreversible decisions made early, meaning limited options to overcome problems
Say “no” and walk away	Forced to battle intractable problems, meaning little success but high cost and stress



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Where have we done OK (1)?

Think slow, act fast	Learning to solve problems in design rather than construction
Get your team right	Probably needed a dedicated Programme Manager throughout
Take the outside view	Did well looking at international best practice initially, but…

Where have we done OK (2)?

Ask “why”

Have lost focus on the purpose of the projects: scope creep

Utility relocation:
- often includes bringing up to current standards

Improved local access:
- new crossing points
- intersection narrowing

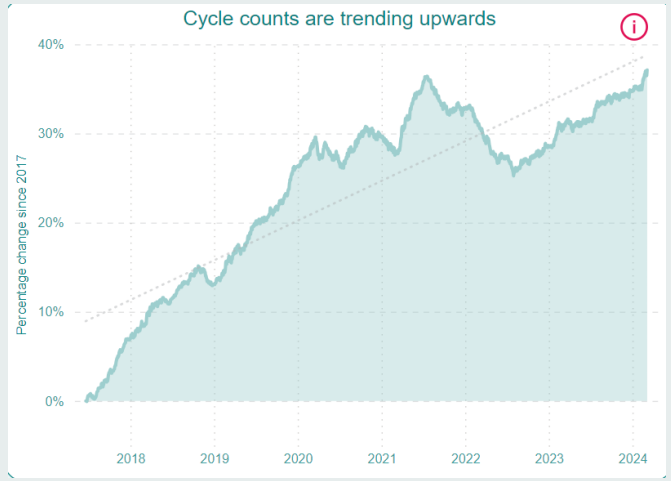
Road renewal:
- reprofile road & footpath
- reset manhole covers
- deal with contaminated land
- road rehab and surfacing

Deep dish removal:
- install new drainage
- upgrade drainage to resolve flooding issues
- replace many laterals

Where have we done well?

Make friends and keep them friendly	Many noisy advocates supporting the projects
Build climate mitigation into your project	Future proofed for seal level rise, extreme weather. Supports a low carbon lifestyle (But… lots of concrete!)
Hire a masterbuilder	Panel agreements with consultants and contractors

Are we succeeding?

On Budget?	On Time?	On Benefits?
✗	✗	✓
Original Business Case: ~$190m Current Forecast: ~$290m **>50% increase**	Original Business Case: Completion by February 2023 Current Forecast: Draft LTP has funding to complete by FY29 **At least 6 years late**	User numbers looking good and growing! 

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Benefits

Benefits (in 2015) were calculated as ~$1.2bn

Likely to have increased significantly

Benefits are heavily about:
a) People “moving”
b) Improvements to air quality

Possible erosion in benefits?
- E-scooters & E-bikes – no movement!
- Electric Vehicles – no air quality issues!