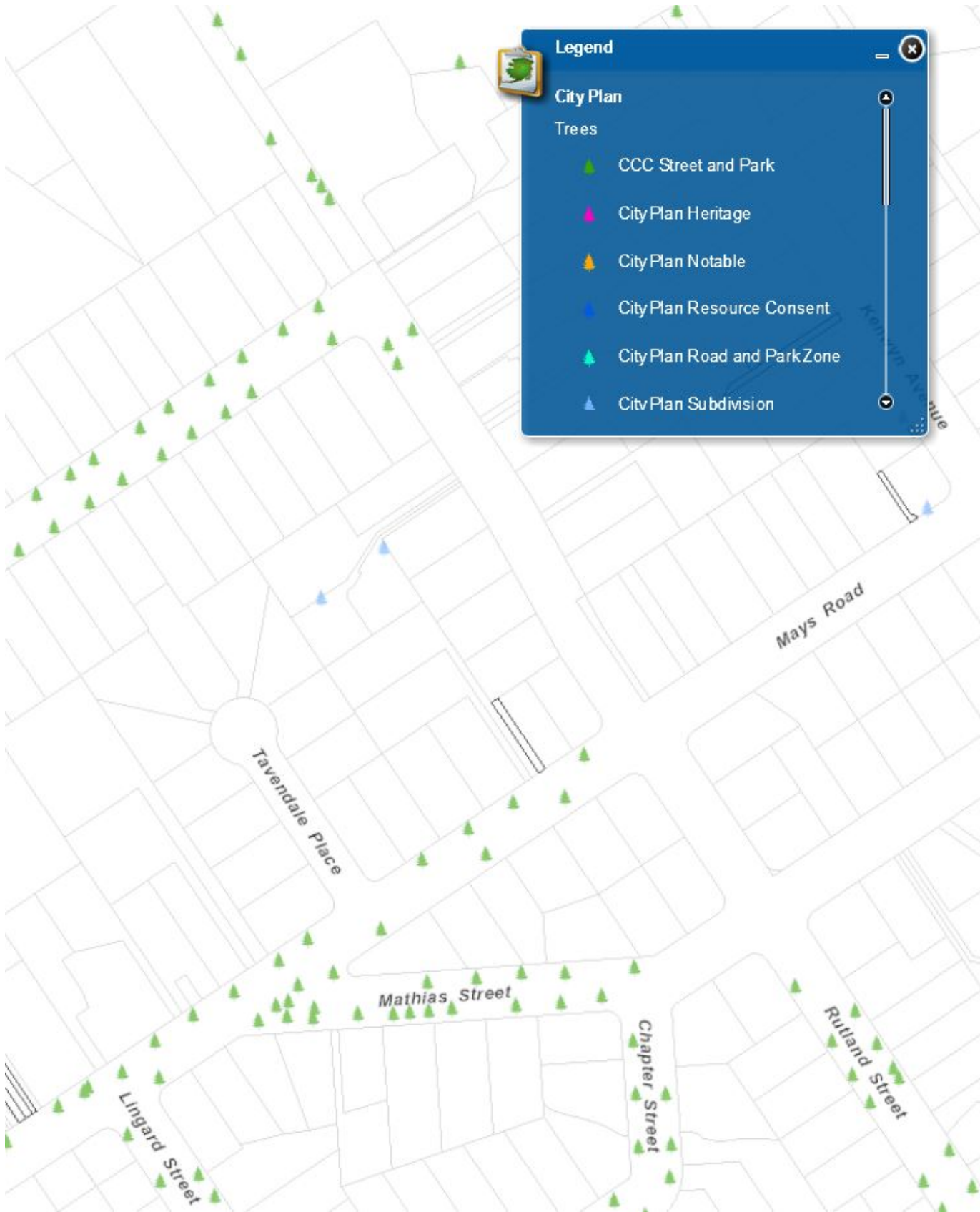


Appendix N

## Street trees





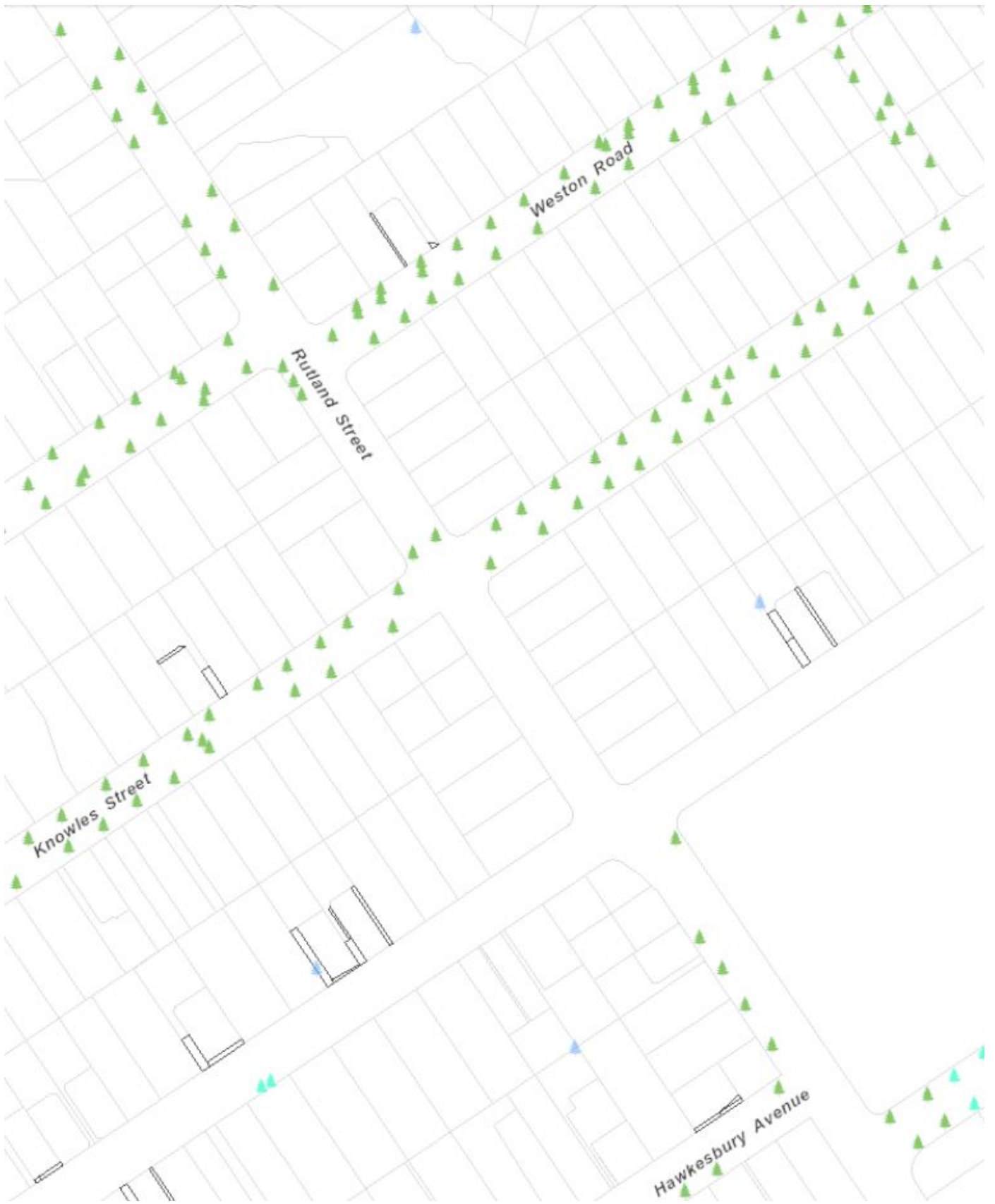


**Legend**

**City Plan**

Trees

- ▲ CCC Street and Park
- ▲ City Plan Heritage
- ▲ City Plan Notable
- ▲ City Plan Resource Consent
- ▲ City Plan Road and ParkZone
- ▲ City Plan Subdivision













Appendix O

## SID register







# Safety in Design Risk Assessment Register

Author (Role): M. Brown (JM) Job No: 3818985  
 Approved By: \_\_\_\_\_ Date: 17 September 2014  
 Revision: ject Name: Papanui Paralle cyclewa Stage of Design / Project: Concept / Scheme  
 (Note: minimum of 2 reviews per project)

RISKS ASSOCIATED WITH DESIGN ELEMENTS				Risk Matrix		PROPOSED & APPROVED MITIGATION MEASURES				Mitigated Risk & Resolution				RESIDUAL RISK		
Hazard Ref	Cause & Outcome	Existing controls, if any	L	C	LR	Proposed Control (1 Eliminate, 2 Substitute, 3 Reduce, 4 Control)				Risk	Client	Design	Date	Risk Owner	Action Required	
<b>1 Construction Phase</b>																
1.01	Position / Location Location were there is significant activity including ped s and cyclists	Use appropriate TTM to CoPTTM	3	2	L	Use of approved TTM - with temporary facilities for cyclists and pedestrians provided				2	2	L				
1.02	Position / Location Work on Bealey Ave Colomob street - high traffic route, how will TM work?	Contractor to get TMP approved by CTOC	3	2	M	Use of approved TTM				2	2	L				
1.03	Heights / Depths Extent of works requiring excavation in areas of services and utilities - resulting potential service strikes	Contractor/Design to locate before you dig procedures	2	3	M	Approved CMP to include location of services and utilities pre construction										
1.04	Timing coordination with other projects eg SCIRT rebuild still to be undertaken in the project area	Coordination required to minimise impacts to public	3	2	M	Client to programme work based on other projects timeframes										
1.05																
1.06																
1.07																
1.08																
1.09																
1.10																
<b>2 Operation &amp; Maintenance Phase</b>																
2.01	Position / Location Rubbish trucks may need to straddle cycleway conflicting with cyclists	None	2	2	L	Provide signage, operate outside of peak hours				1	2	L				
2.02	Position / Location Delineator kerb may be hazard to vehicles	N/A	2	1	L	Ensure contrasting colour kerb/island				1	1	L				
2.03	Position / Location Cycle lanes through intersections are highlighted by green paint which may wear	N/A	2	2	L	Ensure regular maintenance of surface				1	2	L				
2.04	Position / Location Parking in cycleways may result in cyclists unexpectedly moving into live traffic lane	N?A	2	3	M	Ensure enforcement is carried out				1	3	M				
2.05	Position / Location Shared Paths at busy shopping areas (Edgware) may result in an increase of ped/cyclist incidents	No existing controls and existing paths already similar - except don't attract additional cyclists likely after MCR implementation	3	1	L	New facility will need time for users to understand and consider other users				2	1	L				
2.06	Movement Direction Cul-de-sac treatment at Trafalgar Street may impede operation of sweepers and rubbish collectors	No existing control but similar to other operations elsewhere in chch	3	1	L	Update operations manual to ensure operator know the issues and use appropriate plant and identify where they can turn around etc.				2	1	L				
2.07	Movement Direction Bealey Ave Colombo Street Intersection - if left and right turners from Colombo is banned - may be some motorists who perform this manoeuvre anyway.	No existing control but similar to other operations elsewhere in chch - signage and roadmarking and enforcement cameras.....used elsewhere	3	2	M	Signage, road marking and enforcement cameras				2	1	L				
2.08																
2.09																
2.10																



# Safety in Design Risk Assessment Register

Author (Role): M. Brown (JM) Job No: 3818985  
 Approved By: \_\_\_\_\_ Date: 17 September 2014  
 Revision: ject Name: Papanui Paralle cyclewa Stage of Design / Project: Concept / Scheme  
 (Note: minimum of 2 reviews per project)

RISKS ASSOCIATED WITH DESIGN ELEMENTS				Risk Matrix		PROPOSED & APPROVED MITIGATION MEASURES				Mitigated Risk & Resolution				RESIDUAL RISK			
Ref	Hazard (Guideword)	Cause & Outcome	Existing controls, if any	L	C LR	Proposed Control (1 Eliminate, 2 Substitute, 3 Reduce, 4 Control)				L	C LR	Risk Owner	Client Approved	Design Status	Date	Risk Owner	Action Required
<b>3 Demolition Phase</b>																	
3.01																	
3.02																	
3.03																	
3.04																	
3.05																	
3.06																	
3.07																	
3.08																	
3.09																	
3.10																	

**Key;**  
 C= **Consequence** 1) Low 2) Moderate 3) Significant 4) Major 5) Critical  
 L= **Likelihood** 1) Rare 2) Unlikely 3) Possible 4) Likely 5) Almost Certain

LR = **Level** L) Low M) Moderate H) High E) Extreme

**Notes:** Hazards / risks considered are those that are project / site specific, non-standard / bespoke designs, special processes, high hazard risks (e.g. non 'business as usual' hazards) that have been identified at the time of the review(s). Other risks will continue to appear during the design life of the project and should be assessed and managed by appropriate parties.

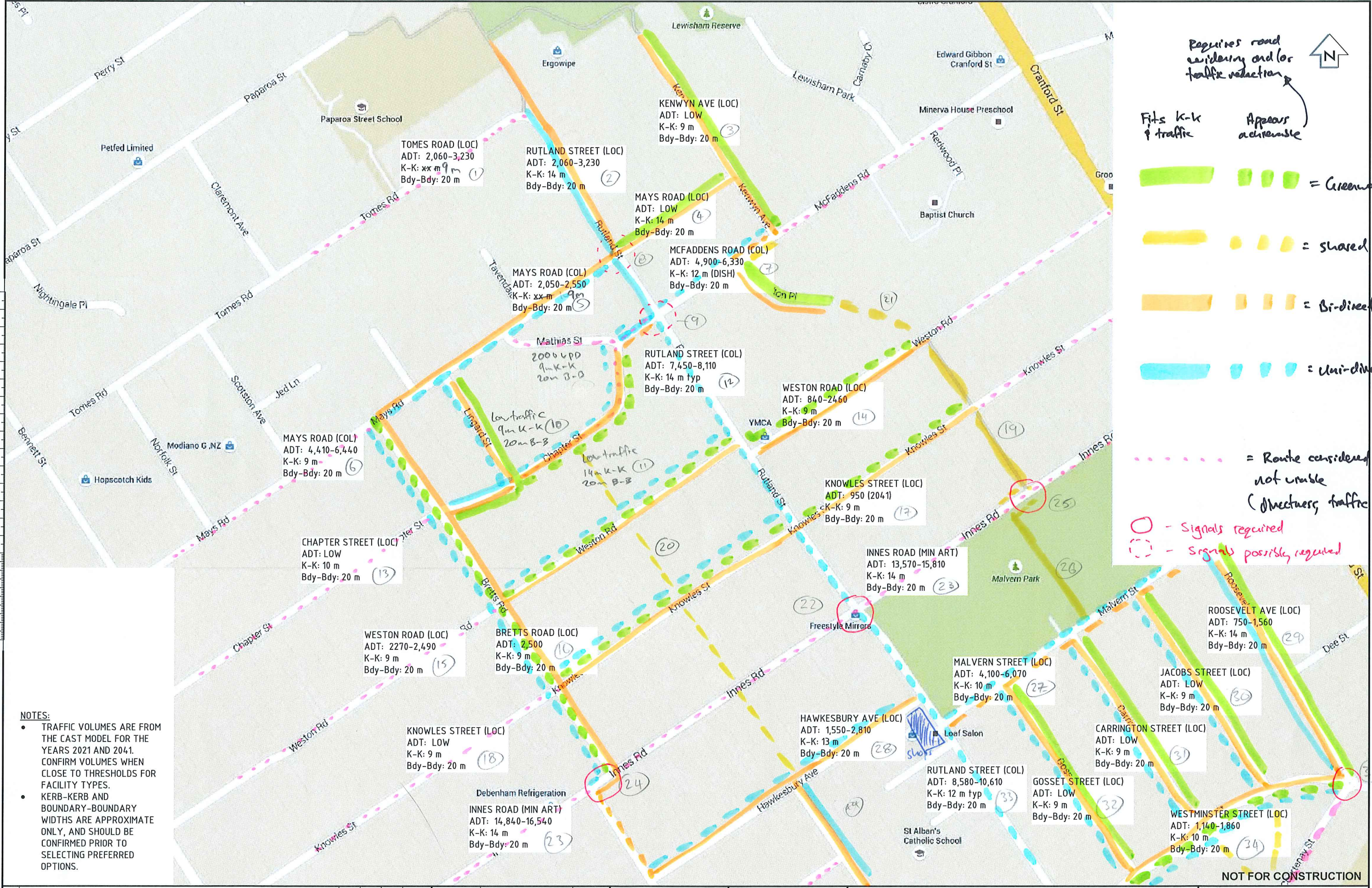
Appendix P

## Long list possibilities - Plans





ORIGINAL SIZE A1



Requires road widening and/or traffic reduction

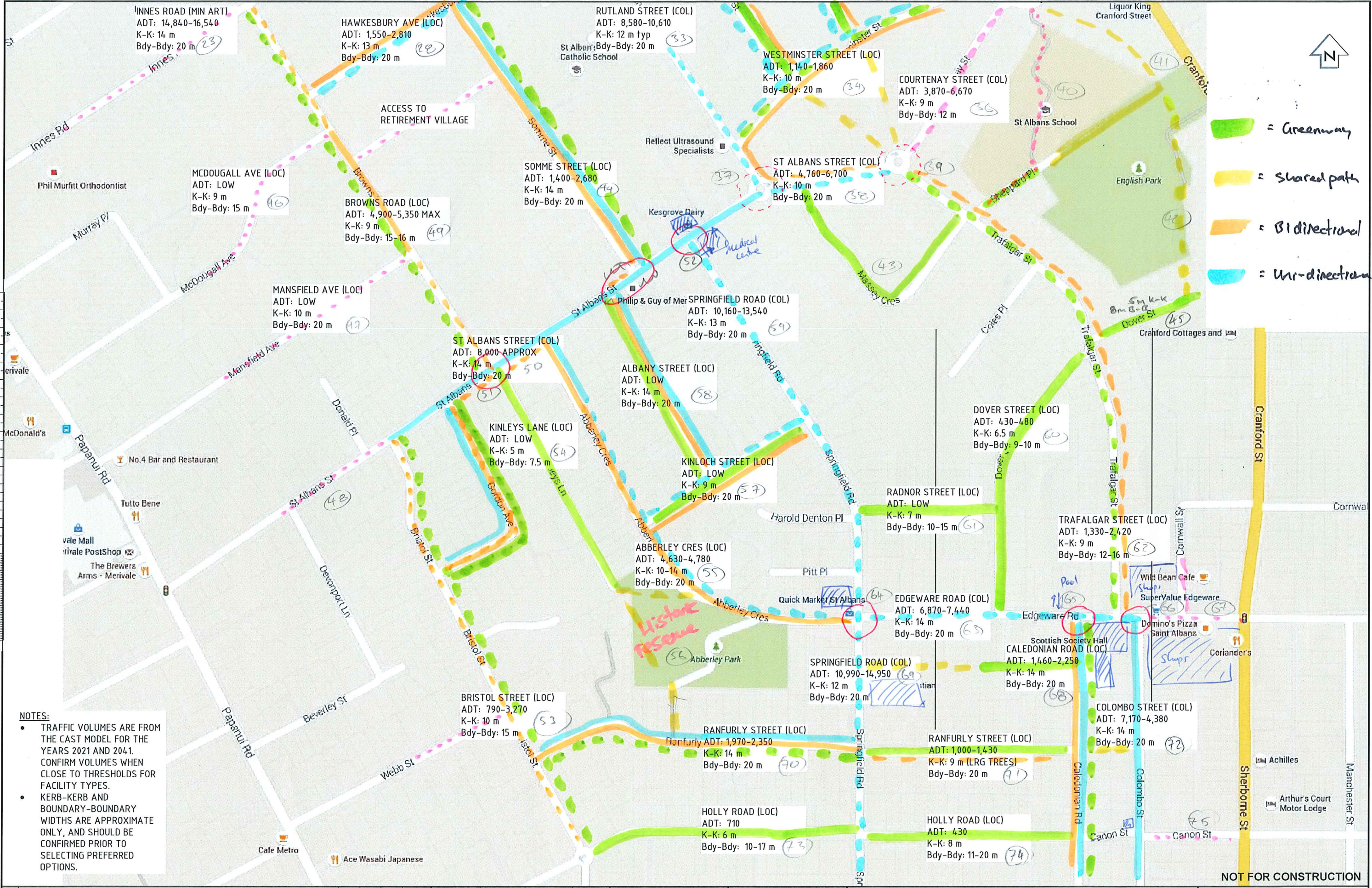
- Fits K-k & traffic
- Appears achievable
- Greenway
- shared path
- Bi-directional
- Uni-directional

= Route considered not viable (direction, traffic vol)

- - Signals required
- - Signals possibly required

- NOTES:**
- TRAFFIC VOLUMES ARE FROM THE CAST MODEL FOR THE YEARS 2021 AND 2041. CONFIRM VOLUMES WHEN CLOSE TO THRESHOLDS FOR FACILITY TYPES.
  - KERB-KERB AND BOUNDARY-BOUNDARY WIDTHS ARE APPROXIMATE ONLY, AND SHOULD BE CONFIRMED PRIOR TO SELECTING PREFERRED OPTIONS.

<table border="1"> <tr><td>REV</td><td>REVISIONS</td><td>DRN</td><td>CHK</td><td>APP</td><td>DATE</td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>		REV	REVISIONS	DRN	CHK	APP	DATE							<table border="1"> <tr><td>SURVEYED</td><td> </td></tr> <tr><td>DESIGNED</td><td> </td></tr> <tr><td>DRAWN</td><td> </td></tr> <tr><td>CAD REVIEW</td><td> </td></tr> <tr><td>DESIGN CHECK</td><td> </td></tr> <tr><td>DESIGN REVIEW</td><td> </td></tr> <tr><td>APPROVED</td><td> </td></tr> <tr><td>PROF REGISTRATION:</td><td> </td></tr> </table>	SURVEYED		DESIGNED		DRAWN		CAD REVIEW		DESIGN CHECK		DESIGN REVIEW		APPROVED		PROF REGISTRATION:		<p style="text-align: center; color: red; font-weight: bold;">NOT APPROVED</p>		<p>Client:</p>	<table border="1"> <tr><td>Status Stamp</td><td>WORKING PLOT</td></tr> <tr><td>Date Stamp</td><td> </td></tr> <tr><td>Scales</td><td> </td></tr> <tr><td>Drawing No.</td><td> </td></tr> <tr><td>Rev.</td><td>A</td></tr> </table>	Status Stamp	WORKING PLOT	Date Stamp		Scales		Drawing No.		Rev.	A
REV	REVISIONS	DRN	CHK	APP	DATE																																							
SURVEYED																																												
DESIGNED																																												
DRAWN																																												
CAD REVIEW																																												
DESIGN CHECK																																												
DESIGN REVIEW																																												
APPROVED																																												
PROF REGISTRATION:																																												
Status Stamp	WORKING PLOT																																											
Date Stamp																																												
Scales																																												
Drawing No.																																												
Rev.	A																																											



REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED  
 DESIGNED  
 DRAWN  
 CAD REVIEW  
 DESIGN CHECK  
 DESIGN REVIEW  
 APPROVED  
 PROF REGISTRATION:

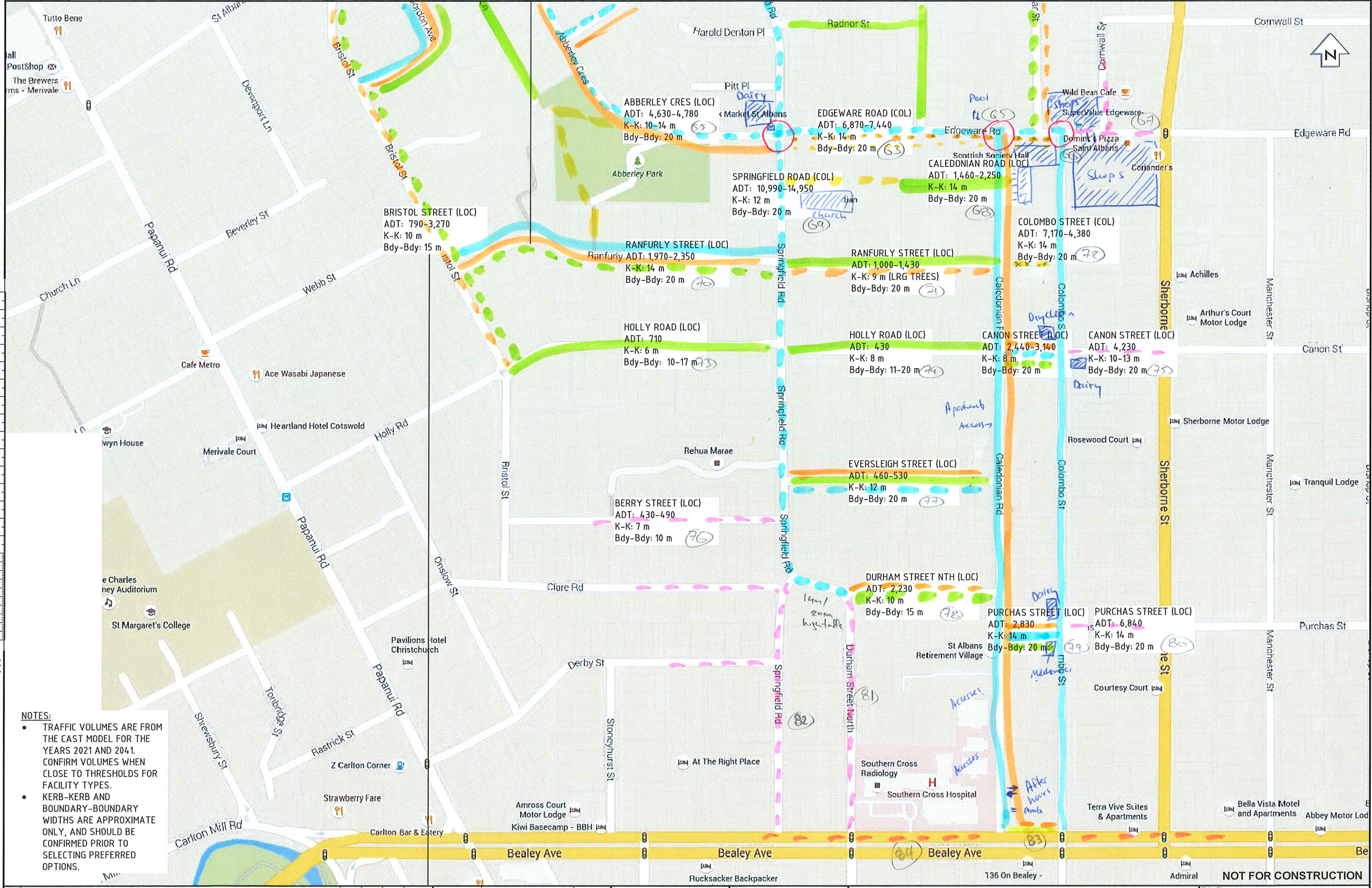
**NOT APPROVED**



Client:	

Status Stamp	<b>WORKING PLOT</b>
Date Stamp	
Scales	
Drawing No.	
Rev.	<b>A</b>





**NOTES:**

- TRAFFIC VOLUMES ARE FROM THE CAST MODEL FOR THE YEARS 2021 AND 2041. CONFIRM VOLUMES WHEN CLOSE TO THRESHOLDS FOR FACILITY TYPES.
- KERB-KERB AND BOUNDARY-BOUNDARY WIDTHS ARE APPROXIMATE ONLY, AND SHOULD BE CONFIRMED PRIOR TO SELECTING PREFERRED OPTIONS.

REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED	
DESIGNED	
DRAWN	
CAD REVIEW	
DESIGN CHECK	
DESIGN REVIEW	
APPROVED	<b>NOT APPROVED</b>
PROF REGISTRATION:	

Client: MWH.


Status Stamp	<b>WORKING PLOT</b>
Date Stamp	
Scales	
Drawing No.	
Rev.	<b>A</b>



Appendix Q

## Long list possibilities - Spreadsheet





Papanui Parallel MCR Route Options - Long List

To be read in conjunction with route overview maps

Stage 1: Short list routes map formed.

Stage 2: Preferred route (including variations) developed.

Reference	Road (* photo appended)	Section	General notes	Parking	Physical constraints	Status
1	Tomes Road	All	Not a viable connection due to directness. Access to school from MCR via reserve entrance.	NA	NA	Discounted - Stage 1: Lack of directness.
2	Rutland Street	Tomes-Mays	Local road north of Mays Road. Kindergarten on north side.	Residential street; typically low daytime parking demand.	14 m k-k; widening not required for these traffic volumes.	
3	Kenwyn Avenue*	All	Well-suited to a neighbourhood greenway treatment.	Residential street; typically low daytime parking demand.	Power poles both sides. Large trees Mays-McFaddens.	Discounted - Stage 2: Property purchase of 2-3 properties and bridge required to make it a direct connection (refer 21).
4	Mays Road	Rutland-Kenwyn	Local road east of Rutland Street.	Residential street; typically low daytime parking demand.	Power poles both sides	Discounted - Stage 1: Lack of directness compared with alternative.
5	Mays Road*	Rutland-Bretts	Collector west of Rutland. Wider berm on north side.	Existing indented parking both sides in addition to 9 m K-K.	Power poles located away from kerb, wouldn't preclude widening/indented parking.	Discounted - Stage 2: Lack of directness compared to alternatives.
6	Mays Road	West of Bretts	Mays Road traffic volumes increase on this section, not a direct route beyond this point.	NA	NA	Discounted - Stage 1: Lack of directness.
7	McFaddens	All	Not viable as a connection east of Kenwyn Ave due to lack of directness. Possible connection between Rutland Street and Kenwyn Ave.	Residential street; typically low daytime parking demand.	Power poles behind dish channel.	Discounted - Stage 1: Lack of directness.
8	Rutland/Mays	Intersection	3-collector/1-local road, currently stop controlled, traffic volumes don't generally warrant signalisation.	NA	NA	
9	Rutland/McFaddens	Intersection	Rutland/McFaddens intersection (3-collector/1-local road), traffic volumes generally don't warrant signalisation, depending on MCR form and direction.	NA	NA	
10	Lingard Street	All	Not a preferred option due to additional turns.	NA	NA	Discounted - Stage 1: Lack of directness and coherence.
11	Chapter Street	Bretts-Rutland	Not a preferred option due to connection with higher volume Rutland/McFaddens intersection and crossing Mathias Street.	NA	NA	Discounted - Stage 1: Lack of coherence - additional crossings/turns.
12	Rutland Street	Mays-Innes	Rutland Street, collector road south of Mays Road. 12 to 14 m K-K.	Residential street; typically low daytime parking demand.	Power poles at back of kerb in 14 m wide section, room available for widening in 12 m wide section with poles 1 m from kerb, although medium street trees (not protected).	
13	Chapter Street	West of Bretts	Not a direct link west of Bretts Road.	NA	NA	Discounted - Stage 1: Lack of directness.
14	Weston Road*	East of Bretts	Wider berms on north side.	Residential street; typically low daytime parking demand.	Power poles located away from kerb, wouldn't preclude widening/indented parking.	Discounted - Stage 1: Lack of coherence - additional crossings/turns.
15	Weston Road	West of Bretts	Not a direct link west of Bretts Road	NA	NA	Discounted - Stage 1: Lack of directness.
16	Bretts Road*	All	Widening or indented parking viable.	Residential street; typically low daytime parking demand.	Power poles located away from kerb, wouldn't preclude widening/indented parking. Small street trees.	Discounted - Stage 2: Lack of directness compared to alternatives.
17	Knowles Street	East of Bretts	Not a preferred option due to lack of directness and additional turns required.	NA	NA	Discounted - Stage 1: Lack of coherence - additional crossings/turns.
18	Knowles Street	West of Bretts	Not a direct link.	NA	NA	Discounted - Stage 1: Lack of coherence - additional crossings/turns.
19	Pedestrian RoW*	Innes-Weston	Pedestrian right-of-way between Innes Road and Weston Road, crossing of Knowles Street (<1,000 vpd). 10 m wide reserve.	None	Some trees may need to be removed to fit 4 m path.	
20	Potential link	Hawkesbury-Chapter	Potential link, requires purchase of multiple properties. Options to end link at either Knowles Street or Weston Road and join Rutland Street earlier.	None	Property purchase - multiple.	Discounted - Stage 2: Multiple property purchases required, large cost and risk to delivery.
21	Potential link	Weston-Ketton Pl	Potential link, requires purchase of 2-3 properties.	None	Property purchase x 2-3, stream crossing.	Discounted - Stage 2: Risks to delivery through property purchase requirements.
22	Innes/Rutland	Intersection	Minor arterial/collector, signalised, no turning restrictions permitted. Generally 20 m corridors, some widening on sth quadrant. CCC owns property on western corner (145 Innes Road).	None adjacent to intersection.	Power poles behind kerb on Rutland St Nth	
23	Innes Road*	Papanui-Cranford	Busy minor arterial, not a desirable environment for an MCR, doesn't offer any benefits in terms of directness.	Mostly residential street; typically low daytime parking demand, higher parking demand for sports training/matches at parks.	Power underground, lighting columns generally at boundary.	Discounted - Stage 1: Road environment not desirable for cycling.
24	Innes Road*	Browns-Bretts	Innes Road between Browns and Bretts Roads, at least 20 m stagger between minor roads, potential location for mid-block signalised crossing for MCR.	Residential street; typically low daytime parking demand.	Power underground, lighting columns at boundary.	Discounted - Stage 2: Lack of directness compared to alternatives.
25	Innes Road*	Opp RoW	Innes Road opposite pedestrian right-of-way (19) and Malvern Park (26), potential location for mid-block crossing for MCR.	Typically low daytime parking demand, higher parking demand for sports training/matches at parks	Power underground, lighting columns at boundary.	
26	Malvern Park*	Park space	Malvern Park, opportunities for shared path to connect pedestrian right-of-way (19) with streets south of Malvern Street.	None	Large trees 4-6 m from boundary, cricket pavilion, playground.	
27	Malvern Street*	All	Unlikely to be a link for the MCR due to directness, however would be a connection to local shops and school. An MCR could possibly cross it.	High parking demand at west end daytime and around sporting fixtures.	Large street trees, power poles typically behind kerb on south side. Dish channel.	
28	Hawkesbury Avenue	All	Unlikely to be a link for the MCR due to directness, unless the property purchase in (20) eventuates. It would be a connection to local shops and school for other routes. An MCR could possibly cross it.	High daytime parking demand on east end, closer to shops and café.	Mostly dish channel, power poles close behind kerb.	Discounted - Stage 2: Lack of directness and coherence - additional turns and doubling back required.
29	Roosevelt Avenue*	All	Connects to Courtney/Westminster intersection (35) and Malvern Park (26)/Innes Road (23).	Residential street, typically low daytime parking demand.	Covered dish channel, some street trees in carriageway, power poles at back of kerb.	
30	Jacobs Street*	All	Potential connection between Westminster Street and Malvern Park. Wide berms.	Residential street; typically low daytime parking demand.	Power poles immediately behind dish channel, medium-sized street trees closer to boundaries.	Discounted - Stage 1: Lack of directness - additional turns or doubling back required.
31	Carrington Street*	All	Potential connection between Westminster Street and Malvern Park, although less direct than Jacobs Street. Wide berms.	Residential street; typically low daytime parking demand.	Power poles immediately behind dish channel, medium-sized street trees closer to boundaries.	

Reference	Road (* photo appended)	Section	General notes	Parking	Physical constraints	Status
32	Gosset Street	All	Potential but unlikely connection between Westminster Street and Malvern Park. Less direct than Jacobs Street and Carrington Street. Wide berms.	Residential street; typically low daytime parking demand.	Power poles immediately behind kerb, large street trees closer to boundary.	Discounted - Stage 2: Leads into entranceways of rugby park on Malvern Street, large trees might require removal.
33	Rutland Street	Innes-St Albans	Collector road, busy outside shops (14 m K-K, otherwise 12 m K-K), school entrance, wider berm on west side.	High daytime parking demand near shops and café, otherwise moderate parking demand throughout, notably church at south end. P15 at all times spaces outside shops.	Power poles close behind kerb on west side, small-medium sized street trees.	
34	Westminster Street	Cranford-Rutland	Winding local road, although CCC scheme shows Westminster to be prioritised over Courtney Street (36). The actual road reserve is 20 m wide, however the stream on the south side appears to be located within the road reserve, reducing the available corridor width to 16 m.	Residential street; typically low daytime parking demand.	Dish channel north side, power poles at back of kerb both sides, narrow path with no berm adjacent to waterway on south side. Fence in front of stream reduces available corridor width to 16 m.	
35	Courtney/Westminster/Roosevelt	Intersection	Collector-local, currently mini-roundabout, CCC scheme to convert to priority control against Courtney Street and Roosevelt Avenue.	Residential street; typically low daytime parking demand.	Waterway on south side of intersection.	Discounted - Stage 2: Doesn't form a viable connection due to items 40/41/42.
36	Courtney Street	All	Traffic volumes and road reserve width preclude any MCR-standard facilities under current layout, even if CCC scheme to put priority against Courtney Street at Westminster Street goes ahead.	Residential street; typically low daytime parking demand.	Dish channel, extremely narrow 12 m road reserve.	Discounted - Stage 1: Insufficient width for MCR-standard facility.
37	Rutland/St Albans	Roundabout	Signalisation definitely required for uni-directional facilities, possibly required for bi-directional.	None adjacent to roundabout.	Large tree (not protected).	
38	St Albans Street	Rutland-Trafalgar	Attractive landscaping.	Indented parking.	Services underground, some street trees.	
39	St Albans/Courtney/Trafalgar	Roundabout	Signalisation most likely required for MCR-standard facilities, depending on type and path.	None adjacent to roundabout. Signalising intersections generally results in a loss of parking around the intersection.	Property accesses within roundabout.	
40	Sheppard PI/St Albans School*	Trafalgar-schoolgrounds	Sheppard PI not a desirable environment for an MCR due to vehicle movements around school drop-off and pick-up, particularly turning. Not acceptable to put an MCR through the school grounds.	NA	NA	Discounted - Stage 1: Road environment not desirable for cycling due to school traffic, school ground section highly unlikely to be accepted by school.
41	St Albans School	Stream	Considerable work would be required to install any type of facility within the stream reserve. A facility around the perimeter of the school grounds might be more feasible.	NA	Waterway, vegetation.	Discounted - Stage 2: CPTED issues due to no passive surveillance.
42	English Park	Perimeter	A facility around the perimeter of English Park would require an amount of land from the surround of the football field and/or a boardwalk-type arrangement on the streambank. It would also require purchase of at least one property on Dover Street.	NA	Football field, waterway, trees, property purchase.	Discounted - Stage 2: CPTED issues, lack of directness, risks to delivery from gaining access permission.
43	Massey Cres	All	Large trees, but well-suited to a neighbourhood greenway.	Residential street; typically low daytime parking demand.	Large street trees, power poles at back of kerb, however widening wouldn't be required for a greenway.	
44	Somme Street	All	Entrance to Catholic Church and School, retirement villas.	Parking demand expected to be high at times.	Dish channel, power poles at back of kerb.	Discounted - Stage 2: Lack of directness and coherence - additional turns and doubling back required.
45	Dover Street	West of Trafalgar	Dead-end street, no turning-head.	Residential street, however possibly used in association with school and sports ground nearby.	Power poles at back of kerb, however road widening not viable due to narrow road reserve.	Discounted - Stage 2: Relies on connection to English Park (42).
46	McDougall Avenue	All	Not a direct link as part of the MCR, however a potential local cycleway link to the Merivale shops on Papanui Road.	On-street parking marked by L's, suggesting higher parking demand associated with Merivale shops.	Services underground, some lighting behind kerb.	Discounted - Stage 1: Lack of directness.
47	Mansfield Avenue	All	Not a direct link as part of the MCR, however a potential local cycleway link to the Merivale shops on Papanui Road.	Expect higher parking demand at the west end, towards Papanui Road.	Power poles generally located back from the kerb, some small street trees.	Discounted - Stage 1: Lack of directness.
48	St Albans Street	West of Bristol	Not a direct link as part of the MCR, however a potential local cycleway link to the Merivale shops on Papanui Road, particularly as the St Albans/Papanui intersection is signalised. Bus route.	Expect higher parking demand at the west end, towards Papanui Road.	Services underground, lighting columns generally at boundary.	Discounted - Stage 1: Lack of directness.
49	Browns Road*	All	Traffic volumes heavier in the block sections at each end, closest to Innes Road and St Albans Street, suggesting use to access McDougall Ave and Mansfield Ave, and possibly also Papanui Road. Retirement village close to McDougall Ave.	Generally residential area, suggesting low daytime parking demand, however demand expected to be higher closer to retirement village.	Power poles at back of kerb on east side, generally further back on west side.	Discounted - Stage 2: Lack of directness compared to alternatives.
50	St Albans Street*	Bristol-Rutland	Shops and medical centre at northern end, close to Rutland Street. Bus route runs from Springfield Road to Papanui Road.	Associated P15 parking outside shops, medical centre has off-street parking.	Services underground, lighting columns at boundary.	Discounted - Stage 2: Lack of directness compared to alternatives.
51	St Albans/Browns*	Intersection	Collector/local roads, currently uncontrolled. Location of signalised crossing to connect MCR between Kinleys Lane or Abberley Cres and Browns Road.	Signalising intersections generally results in a loss of parking around the intersection.	Two large trees either side of the road at the entrance to Browns Road.	Discounted - Stage 2: Not part of a viable option.
52	Springfield/St Albans	Intersection	This intersection would need to be signalised if the uni-directional cycleway was to run up Springfield Road to this point.	Expect higher parking demand around shops and medical centre in (50). Signalising intersections generally results in a loss of parking around the intersection.	Services underground, lighting columns currently at boundary.	Discounted - Stage 2: Not part of a viable option.
53	Bristol Street	All	Unlikely route for the MCR due to deviation from most direct route.	NA	NA	Discounted - Stage 1: Lack of directness.
54	Kinleys Lane*	All	Local lane, well-suited to a neighbourhood greenway.	Residential street; typically low daytime parking demand.	No notable obstructions.	Discounted - Stage 2: Lack of directness and passive security issues.
55	Abberley Crescent*	All	Road width varies, section on west side with no footpath.	Residential street; typically low daytime parking demand. Abberley Park (56) will attract an amount of parking.	Power poles at back of kerb, dish channel.	Discounted - Stage 2: Lack of directness compared to alternatives.
56	Abberley Park*	Reserve	Historic reserve, potential for shared path to connect to Kinleys Lane (54) from Abberley Cres (55).	NA	Some bushes and other plants, including a rose garden, will be in the way of a path.	Discounted - Stage 2: Lack of passive security.
57	Kinloch Street	All	Unlikely route for the MCR due to deviation from most direct route and additional turns required.	NA	NA	Discounted - Stage 1: Lack of directness and coherence.
58	Albany Street	All	Unlikely route for the MCR due to deviation from most direct route and additional turns required.	NA	NA	Discounted - Stage 1: Lack of directness and coherence.
59	Springfield Road	Edgeware-St Albans	Collector road, however functions more as minor arterial. Bus route. Dairy at corner by Abberley Cres.	Residential street; typically low daytime parking demand.	Services underground, lighting columns located at boundary.	Discounted - Stage 2: Lack of directness compared to alternatives. Higher traffic volumes less conducive for cycling.

Reference	Road (* photo appended)	Section	General notes	Parking	Physical constraints	Status
60	Dover Street	Edgeware-Trafalgar	Attractive greenway environment, however the narrow road and road reserve widths would preclude any parking in conjunction with an MCR-standard greenway. Making Dover Street one-way for vehicular traffic may allow for the retention of parking. This would require further assessment in order to be deemed viable.	Residential street; typically low daytime parking demand.	Narrow road reserve; road widening not viable.	
61	Radnor Street	All	Attractive greenway environment, however doesn't form a useful connection due to a lack of directness and intersections with other roads, particularly Springfield Road, where it would need to be signalised, affecting coherence.	Residential street; typically low daytime parking demand. Purchase of property frontages would be required to provide parking.	Some properties come close to the kerb (no footpath in places), power poles at back of kerb on both sides.	Discounted - Stage 1: Lack of directness and coherence.
62	Trafalgar Street	All	Management of traffic volumes required in order to be used as a neighbourhood greenway, road reserve width insufficient to provide bi-directional facility whilst retaining parking. Used as a drop-off, pick-up and turning area for St Albans School at the north end.	Residential street; typically low daytime parking demand, however higher demand around start and end of school day.	Property boundary setbacks from road vary, power poles generally back from the kerb, some small street trees.	
63	Edgeware Road*	Springfield-Colombo	Collector road through a suburban shopping centre, along a bus route with two bus stops in this section. Offstreet parking located on SE corner of Colombo St and Edgeware Rd. Proposed redevelopment of public pool on north side, opposite Caledonian Road.	High daytime parking demand due to retail activity. Restaurants in the area suggest evening parking demand also. P30 parking restriction, along with taxi stand.	Services underground, however lighting at back of kerb. Undesirable to widen roadway due to pedestrian demand around retail area.	
64	Springfield/Edgeware/Abberley	Intersection	3 collector/1 local road, currently under stop control. Traffic volumes would dictate that this intersection be signalised unless the MCR was to take the form of uni-directional facilities along Springfield Road, however connectivity with the local shops would need to be considered.	Signalising intersections generally results in a loss of parking around the intersection.	Services underground, lighting at boundary, large street trees on Springfield Road near intersection.	Discounted - Stage 2: Not part of a viable option.
65	Edgeware/Caledonian*	Intersection	Local-collector, currently uncontrolled T-intersection, signalisation would be required for an MCR-standard facility to cross Edgeware Road due to traffic volumes. A redevelopment of the public pool is proposed on the north side Edgeware Road, with a vehicle access on Edgeware Road, slightly offset from Caledonian Road. This would need to be considered in any design of a signalised intersection.	Signalising intersections generally results in a loss of parking around the intersection.	Services underground, lighting at boundary, some street trees.	
66	Edgeware/Colombo	Intersection	Collector-collector T-intersection, currently under stop control, signalisation would be required for an MCR-standard facility to cross Edgeware Road due to traffic volumes.	Signalising intersections generally results in a loss of parking around the intersection.	Services underground, lighting at boundary, shops fronting onto footpath.	
67	Edgeware Road	East of Colombo	Not a viable connection due to directness, connects to Cranford Street which is highly undesirable for an MCR.	NA	NA	Discounted - Stage 1: Lack of directness and coherence.
68	Caledonian Road*	Bealey Avenue - Edgeware Road	Rear entrance to Southern Cross Hospital and 24 hour Medical Centre located approximately oppose each other 30m north of Bealey Avenue. Intersections at either end are T-intersections with left-in-left-out intersection at the southern end. Community Hall on the corner of Edgeware Road and Caledonian Road.	Parking demand to the south is likely to be heavy all day due to the presence of the Southern Cross Hospital, 24 hour medical centre and medium density residential development. The northern section is likely to parking demand consistent with medium density residential development. Perpendicular parking provided outside the Community Hall on the eastern side between Edgeware Road and Keoghs Lane which is likely to be occupied by people using the community hall. Car park entrance to the St. Albans Community Centre located on the eastern side 10m north of Ranfurly Street. Spill over of parking from this facility likely to be shared by Caledonian Road and Colombo Street	24 hour access to Southern Cross and 24 hour medical centre would need to be retained. Footpath adjacent to kerblines. Power poles present on both sides of the road near kerblines.	
69	Springfield Road*	Durham Street North - Edgeware Road	High traffic volumes and connects to collector road at the northern end	Presence of a church between Ranfurly Street and Edgeware Road will create high parking demand in this block on during worship (e.g. Sunday morning, Sunday Evening). Parking demand elsewhere likely to be consistent with medium density residential development	Concrete lighting poles located near the boundary line.	Discounted - Stage 2: Lack of directness, connectivity to Edgeware shops and traffic volumes higher than alternatives.
70	Ranfurly Street*	Springfield Road - Bristol Street	Connects to a collector road at the eastern end. Provides a connection through to Abberley Park via a 3m wide pedestrian access which may require purchase of additional land to achieve a shared path to standard. To the west of the connection through to Abberley Park takes the cyclist away from the intended destination. This road does not have priority over other road which will create additional delay for cyclists	Parking demand likely to be consistent with medium density residential development	Footpath adjacent to kerblines. Power poles on both sides at near the kerblines.	Discounted - Stage 2: Lack of directness and connectivity to Edgeware shops.
71	Ranfurly Street*	Caledonian Street Springfield Road	Large trees line the street (trees are not protected under the CCC city Plan). Connects to a collector road at the western end. Road does not have priority over other road which will create additional delay for cyclists	Parking demand likely to be consistent with medium density residential development	Power poles present of both sides of the road near the footpath.	Discounted - Stage 2: Lack of directness and connectivity to Edgeware shops.
72	Colombo Street	Bealey Avenue - Edgeware Road	Connects directly to the cycleway on Colombo Street to the south of Bealey Avenue. Bus route present on the road with 4 stops on each side of the road. Access to Edgeware Village carpark taken from eastern side at the northern end. Access to 24 hour medical centre taken from western side at the southern end	High parking demand at the northern and southern ends of the road likely during the day due to the presence of Edgeware Shopping Centre at the northern end and the 24-hour medical centre and commercial shops at the southern end. One dairy on the eastern and western sides of the road in the block between Purchas Street and Canon Street with each dairy having a loading zone directly outside the shop. Parking demand elsewhere likely to be consistent with medium density residential demand.	Concrete light poles set back to near the boundary.	
73	Holly Road	Springfield Road - Bristol Street	Traffic calming present on along the length of this section creating low traffic volumes. Road does not have priority over other roads which will create additional delay for cyclists. This section results in the cyclist going away from the intended destination	No restrictions on on-street parking with parking demand likely to be high at night due to medium density residential development	Power poles on both sides of the road near the kerblines.	Discounted - Stage 1: Lack of directness.
74	Holly Road	Caledonian Street Springfield Road	Traffic calming present on along the length of this section creating low traffic volumes. Road does not have priority over other roads which will create additional delay for cyclists	No restrictions on on-street parking with parking demand likely to be high at night due to medium density residential development	Power poles on both sides of the road near the kerblines.	Discounted - Stage 2: Lack of directness/coherence - additional turns required.

Reference	Road (* photo appended)	Section	General notes	Parking	Physical constraints	Status
75	Canon Street	Sherbourne Street - Caledonian Road	Road does not have priority over so will result additional delay for cyclists crossing at intersections. Two small commercial developments at the Colombo Street intersection	Some indented perpendicular parking provided on both sides of the road. Likely to have high parking demand at night due to medium density residential development.	Power poles on southern side between Colombo Street and Caledonian Road.	Discounted - Stage 1: Lack of directness and coherence.
76	Berry Street	East of Springfield Road	Road does not have priority over so will result additional delay for cyclists crossing at intersections. Road takes the cyclist far from the most direct routes. The route to get to this road requires several direction changes in rapid succession and is unlikely to be coherent to cyclists	Parking demand is likely to be heaviest during the evening due to medium density residential housing. Limited kerb-kerb-width will result in very narrow carriageway when vehicles are parked on both sides of the road	Power poles on both sides.	Discounted - Stage 1: Lack of directness and coherence.
77	Eversleigh Street*	Caledonian Street - Springfield Road	Road does not have priority over so will result additional delay for cyclists crossing at intersections. The route to get to this road requires a number of direction changes in a short space of time so may seem indirect and incoherent to cyclists	Parking demand likely to be consistent with medium density residential development	Power poles on both sides.	Discounted - Stage 1: Lack of coherence - additional crossings/turns.
78	Durham Street North*	Caledonian-Springfield	Road does not have priority over so will result additional delay for cyclists crossing at intersections.	Parking demand likely to be consistent with medium density residential development	Power poles on both sides.	Discounted - Stage 1: Lack of coherence - additional crossings/turns.
79	Purchas Street	Sherbourne Street - Caledonian Road	Road does not have priority over so will result additional delay for cyclists crossing at intersections. Two small commercial developments at the Colombo Street intersection. Mechanics has service bays fronting onto the street on the south side of Purchas Street.	Likely to have high parking demand during the day due nearby to commercial development and moderate parking during the night due to small amount of medium density residential development	Power poles on northern side between Colombo Street and Caledonian Road. B	Discounted - Stage 1: Lack of directness and coherence.
80	Sherborne Street / Cranford Street	Bealey Avenue - McFaddens Road	Will connect to two Major Arterial Roads and will form one of main vehicle connections to the Northern Motorway and North Canterbury. This road also does not have a direct connection to the CBD. A major bus route present to the north of Edgeware Road	Mix of residential development and commercial areas present along the road. Parking demand around commercial area likely to peak during the day and parking demand peaking around residential areas likely to peak during the evening. Access to the main car park for English Park takes access from Cranford Street.	Concrete light poles set back to near the boundary in areas	Discounted - Stage 1: Road environment not desirable for cycling.
81	Durham Street North	Bealey Avenue-Springfield	Connects to Major Arterial Road to the South. The southern end has the main public entrance to Southern Cross Hospital.	Parking likely to be heavy throughout the day due to medium density residential housing and Southern Cross Hospital	24 hour access to Southern Cross Hospital will need to be retained. Power poles on the western side of the road	Discounted - Stage 1: Lack of directness and coherence.
82	Springfield Road	Bealey Avenue-Durham Street North	Connects to Collector and Major Arterial. This road has not direct connection to CBD Across Bealey Avenue	Parking provided on both sides of the road. Parking is likely to be highest at night due to presence of medium density residential housing	Power Poles on the eastern side of the road.	Discounted - Stage 1: Lack of directness and coherence.
83	Colombo/Purchas	Intersection	Collector/local roads, any route along Purchas Street connecting into uni-directional facilities on Colombo Street would require signalisation of this intersection.	Signalising intersections generally results in a loss of parking around the intersection. Parking demand is relatively high in this area.	Purchas Street has power poles and lighting at the back of the kerb.	
84	Bealey Avenue	Sherbourne Street - Springfield Road	Main circulating road around the CBD. Protected trees present in the median will require resource consent to remove. Provides secondary access to Southern Cross Hospital. Signalisation will be required for cycleway to cross this road	Parking demand is likely to be highest during the day due to the presence of commercial properties.	3-Lane-2-Way road with large median separation. Protected trees in the median. Concrete street lighting pole on both sides. Major roads intersecting are signal controlled with the other roads restricted to left-in-left-out	Discounted - Stage 2: Difficult to create a viable connection without affecting the capacity of Bealey Ave. Lack of directness and connection to Edgeware shops. Bealey Ave not a desirable environment for cycling.



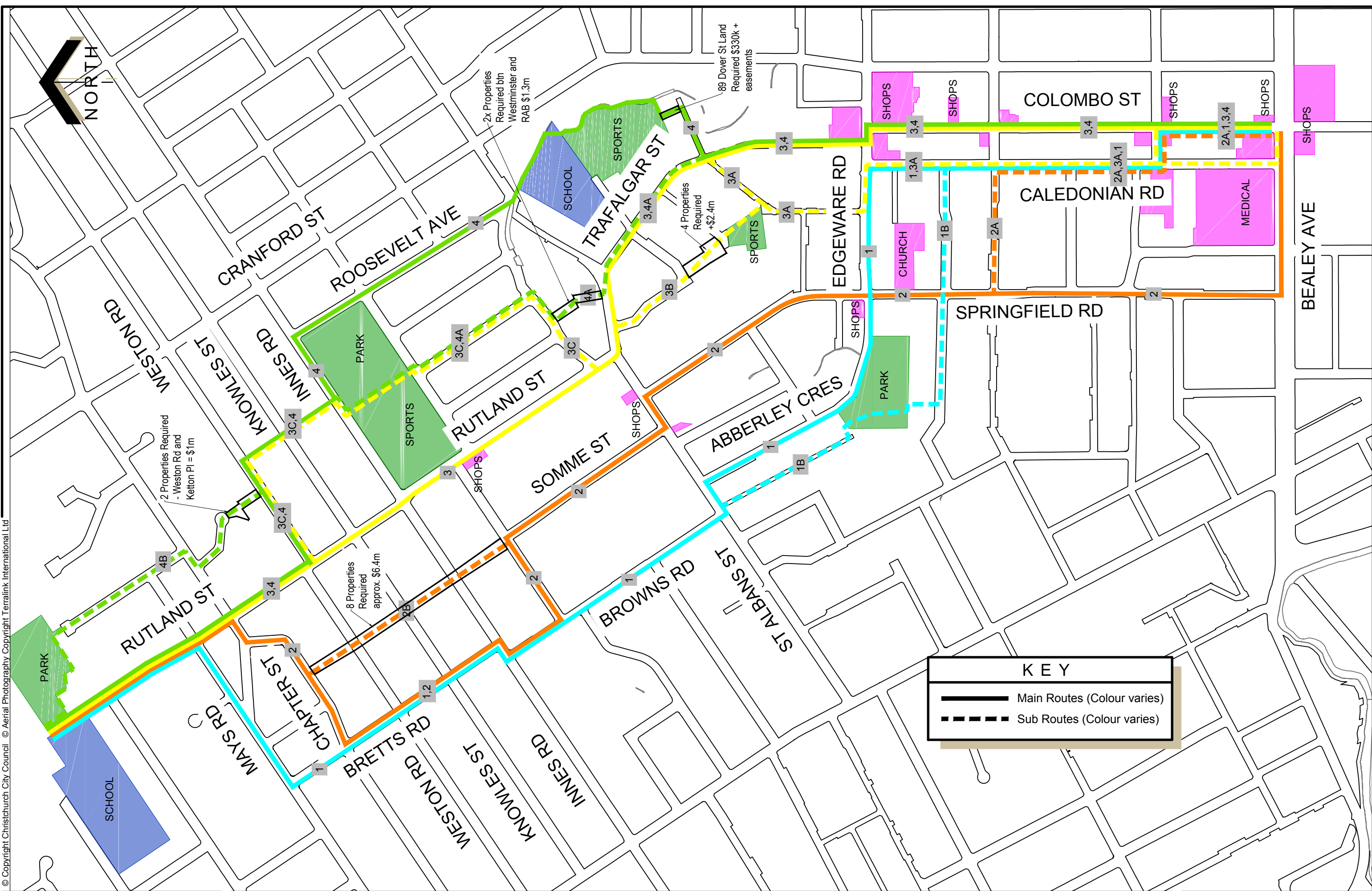
Appendix R

## Short list options





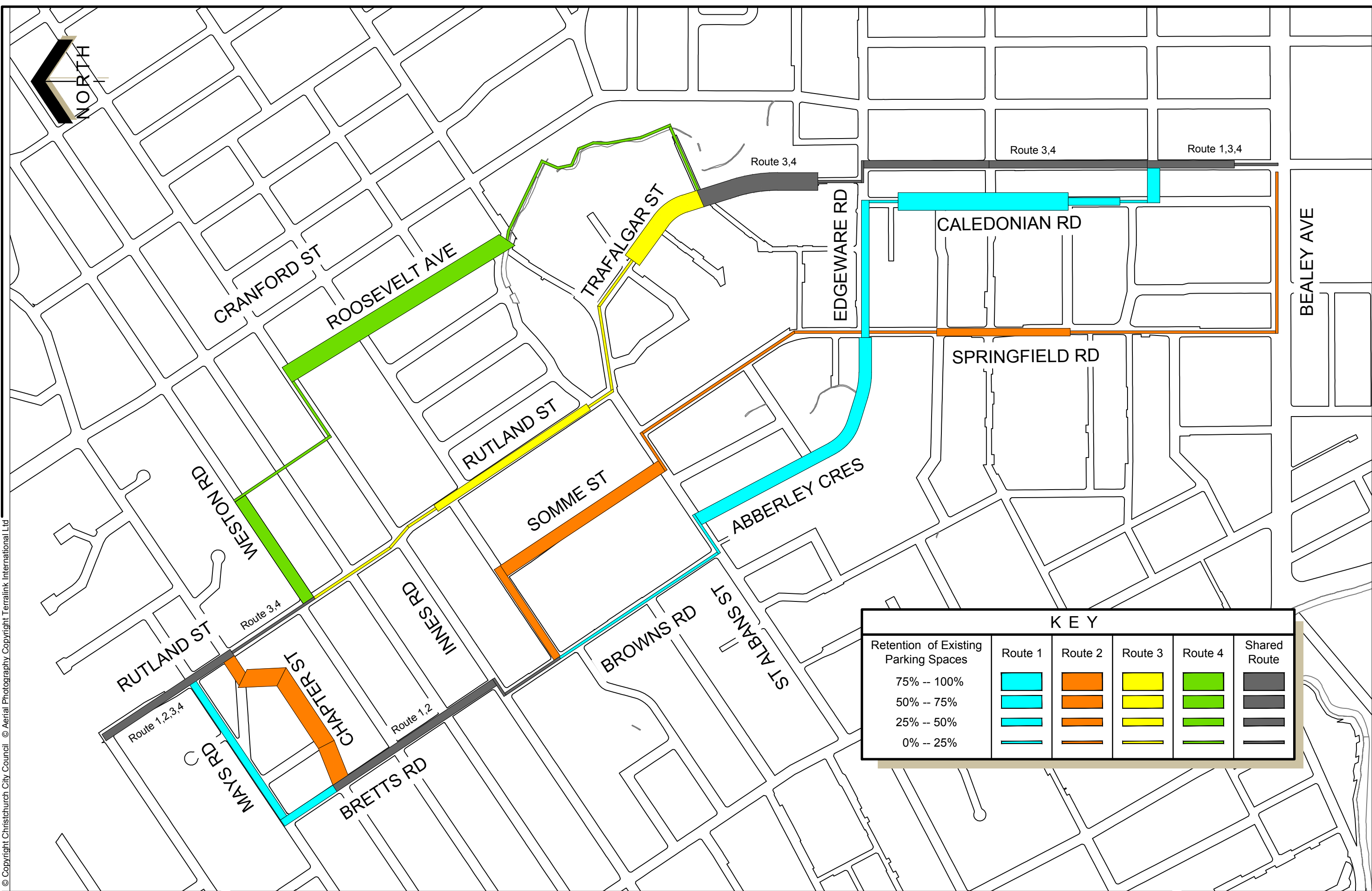
Original size mm  
100  
50  
30  
10  
0



© Copyright Christchurch City Council © Aerial Photography Copyright Terralink International Ltd

Original size mm  
100  
50  
30  
10  
0

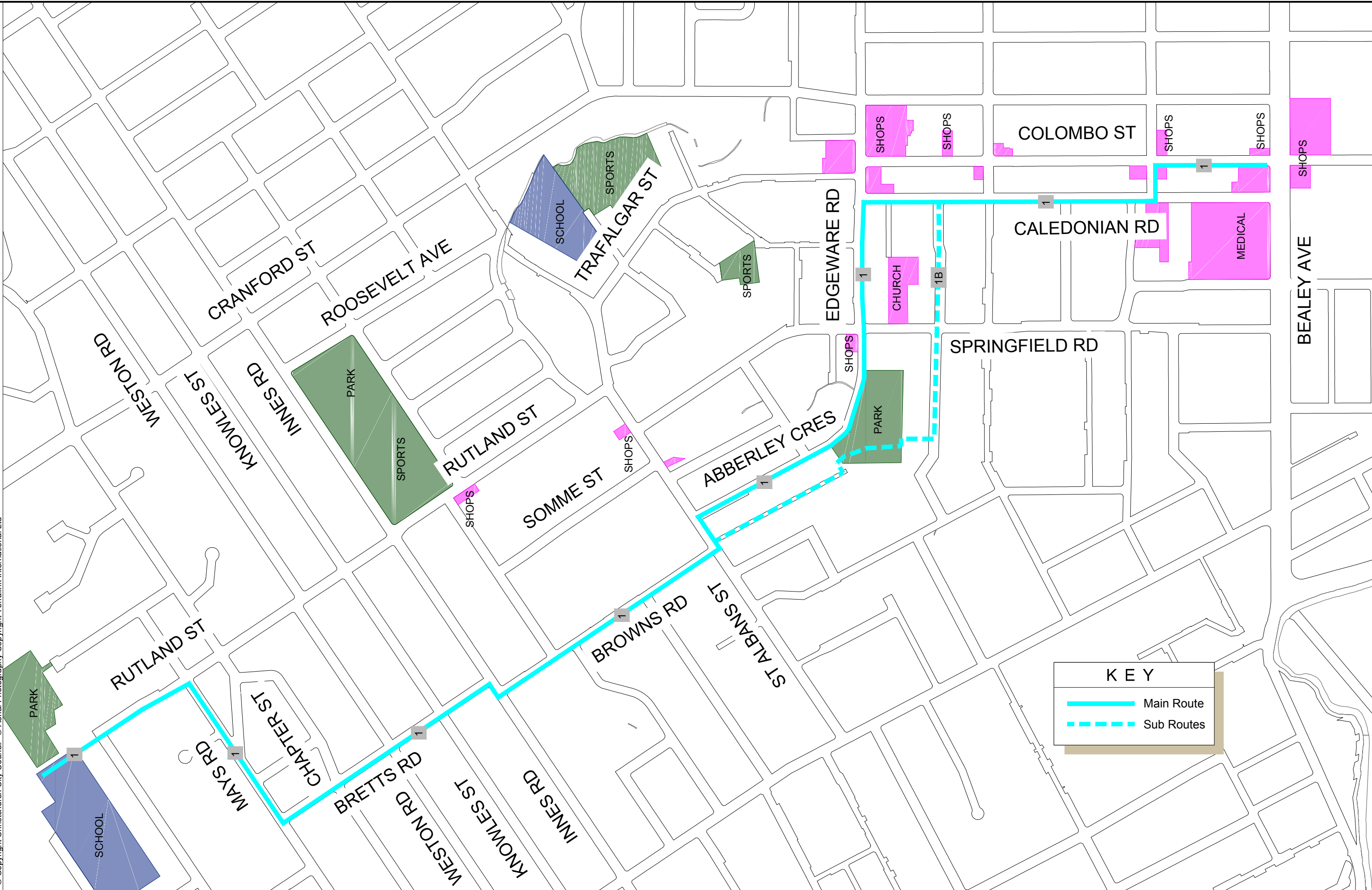
© Copyright Christchurch City Council. © Aerial Photography Copyright Terralink International Ltd



KEY					
Retention of Existing Parking Spaces	Route 1	Route 2	Route 3	Route 4	Shared Route
75% -- 100%					
50% -- 75%					
25% -- 50%					
0% -- 25%					

Original size mm  
100  
50  
30  
10  
0

© Copyright Christchurch City Council © Aerial Photography Copyright Terralink International Ltd



100 Original size mm

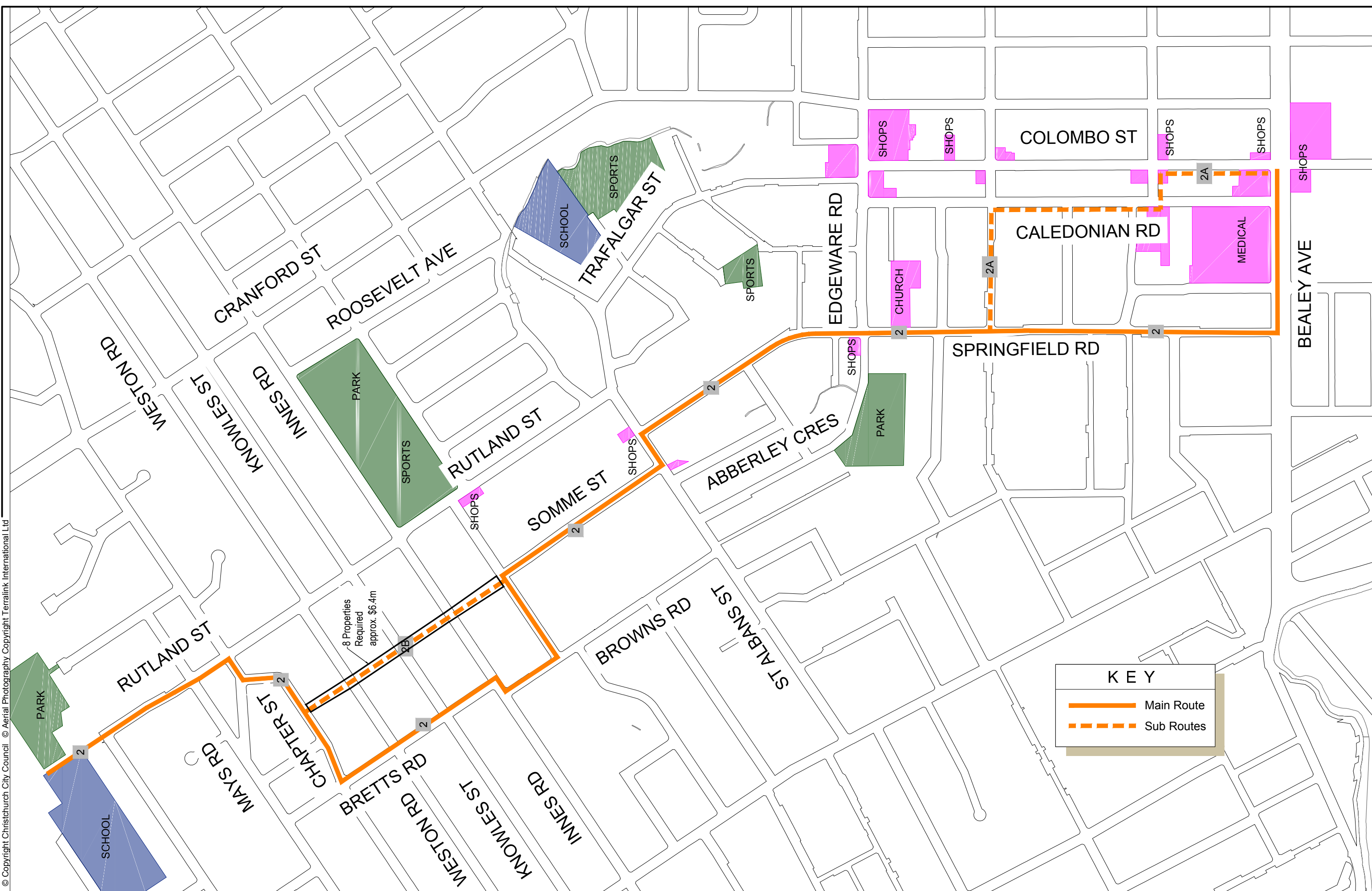
50

30

10

0

© Copyright Christchurch City Council © Aerial Photography Copyright Terralink International Ltd



100 Original size mm

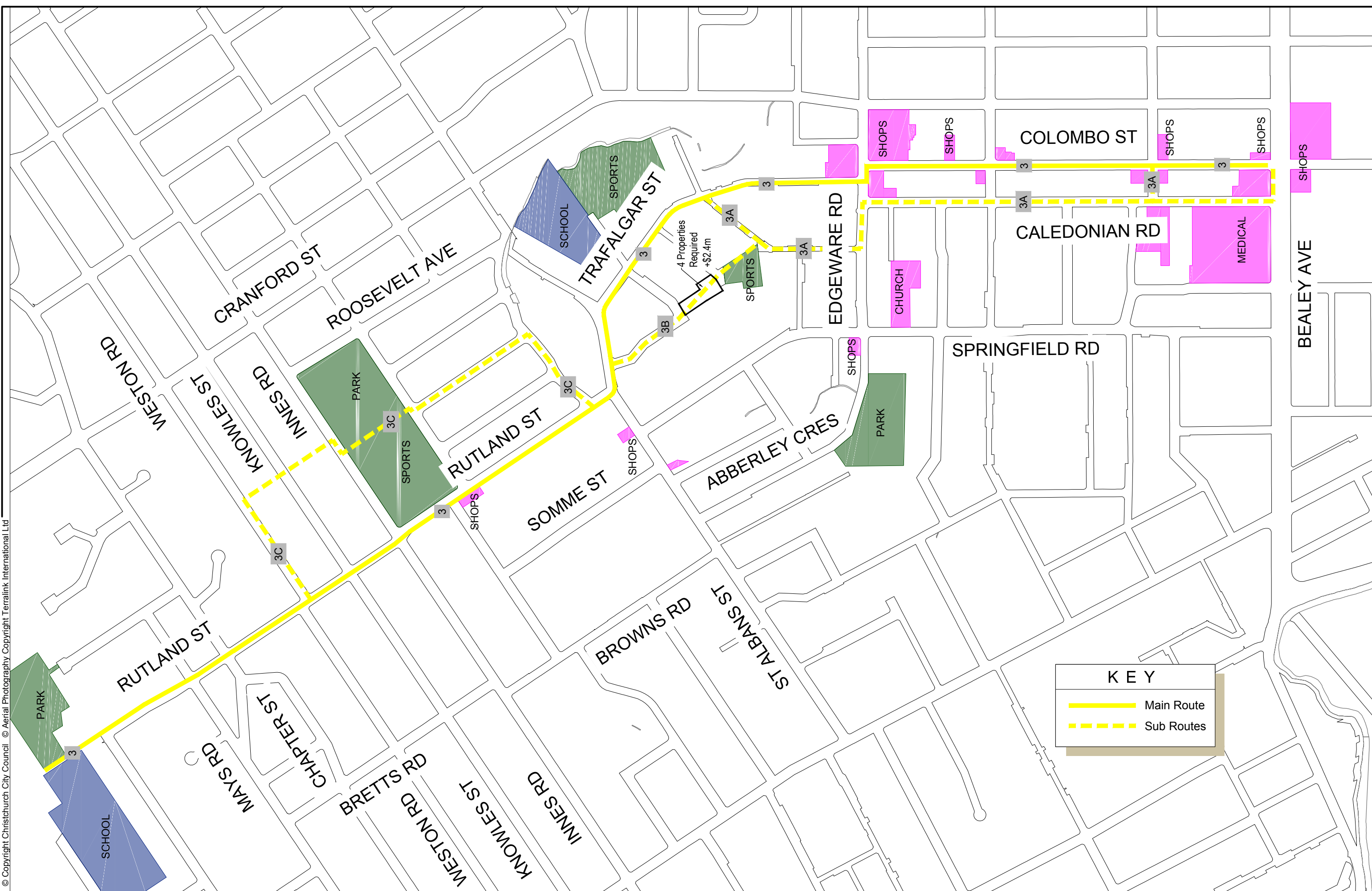
50

30

10

0

© Copyright Christchurch City Council © Aerial Photography Copyright Terralink International Ltd



**KEY**

- Main Route
- Sub Routes

100 Original size mm

50

30

10

0

© Copyright Christchurch City Council © Aerial Photography Copyright Terralink International Ltd

