How GIS supported a community discussion about speed limits

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Nelson City Council
te kaunihera o whakatū

INTRO

Change

The way speed limits are set has changed…

Speed Management Plan instead of Bylaws

Joint Regional Transport Committee

Tasman District Council together with Nelson City Council

Consultation on a Draft Speed Management Plan ended in February (over 2000 submissions!)

The Plan is aimed to come in 2024

Safe and Appropriate

Waka Kotahi / NZ Transport Authority (NZTA)

One Network Framework (ONF)

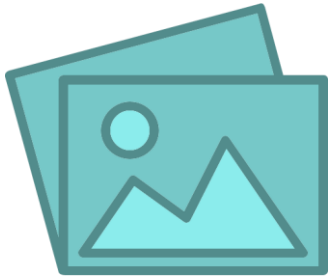
An evolution of the One Network Road Classification (ONRC)

BACKGROUND

Original request

Maps of selected Townships and Schools

to include in the Draft Speed Management Plan document



Urban Options

WE ARE PROPOSING FOUR OPTIONS FOR THE URBAN AREA: (km/h)

URBAN ROADS	OPTION A	OPTION B	OPTION C	OPTION D
Outside schools (within 100m of boundary)	30	30	30	30
School neighbourhoods	50	30	40	30
Selected town centres and tourist areas	50	30	40	30
Local urban streets	50	50	40	30
Urban connector streets with separated cycle facilities	50	50	50	50

Rural Options

WE ARE PROPOSING FOUR OPTIONS FOR THE RURAL AREA: (km/h)

The speeds in Option 4 reflect SAAS and International best practice.

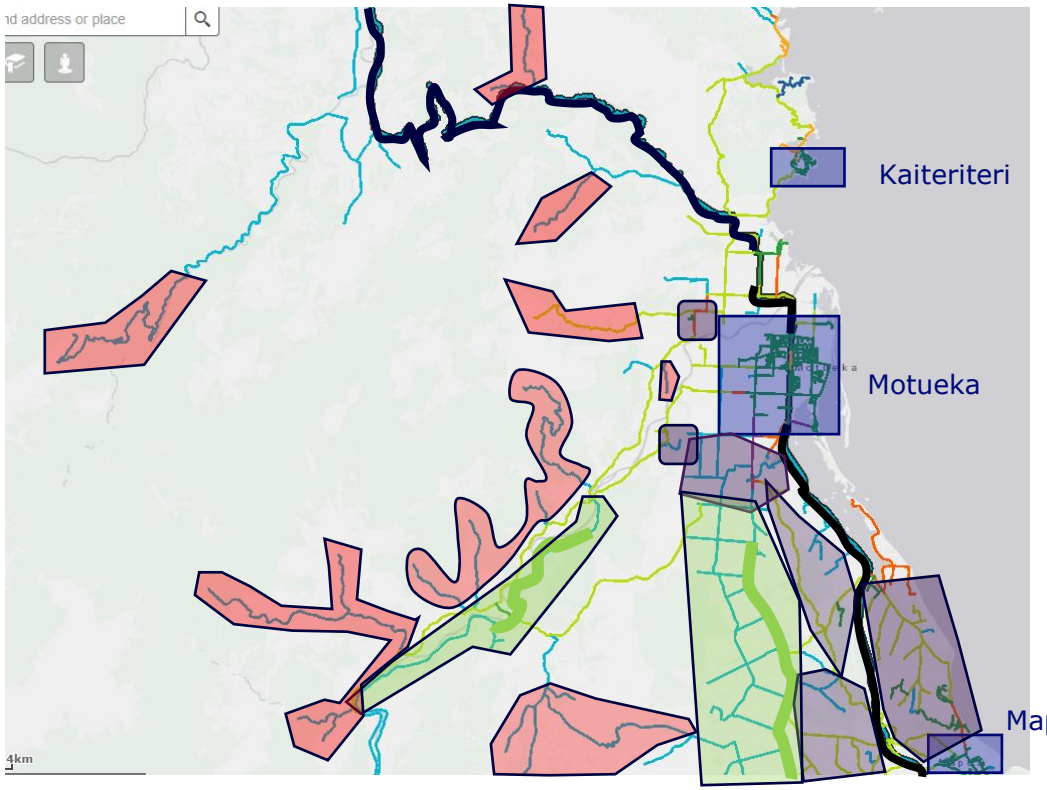
RURAL ROADS	OPTION 1	OPTION 2	OPTION 3	SAAS OPTION 4
Outside schools	30 - 60	30 - 60	30 - 60	30 - 60
Rural residential areas	100	50 - 60	50 - 60	50
Unsealed rural roads (winding or narrow)	100	60	80	60
Unsealed rural roads	100	100	80	60
High risk roads and adjacent roads	100	80	80	60 - 80
Sealed rural roads (winding or narrow)	100	100	80	60
All other sealed rural roads	100	100	80	80

Markups

Tasman Rural: Motueka Valley

EARLY MARKUP

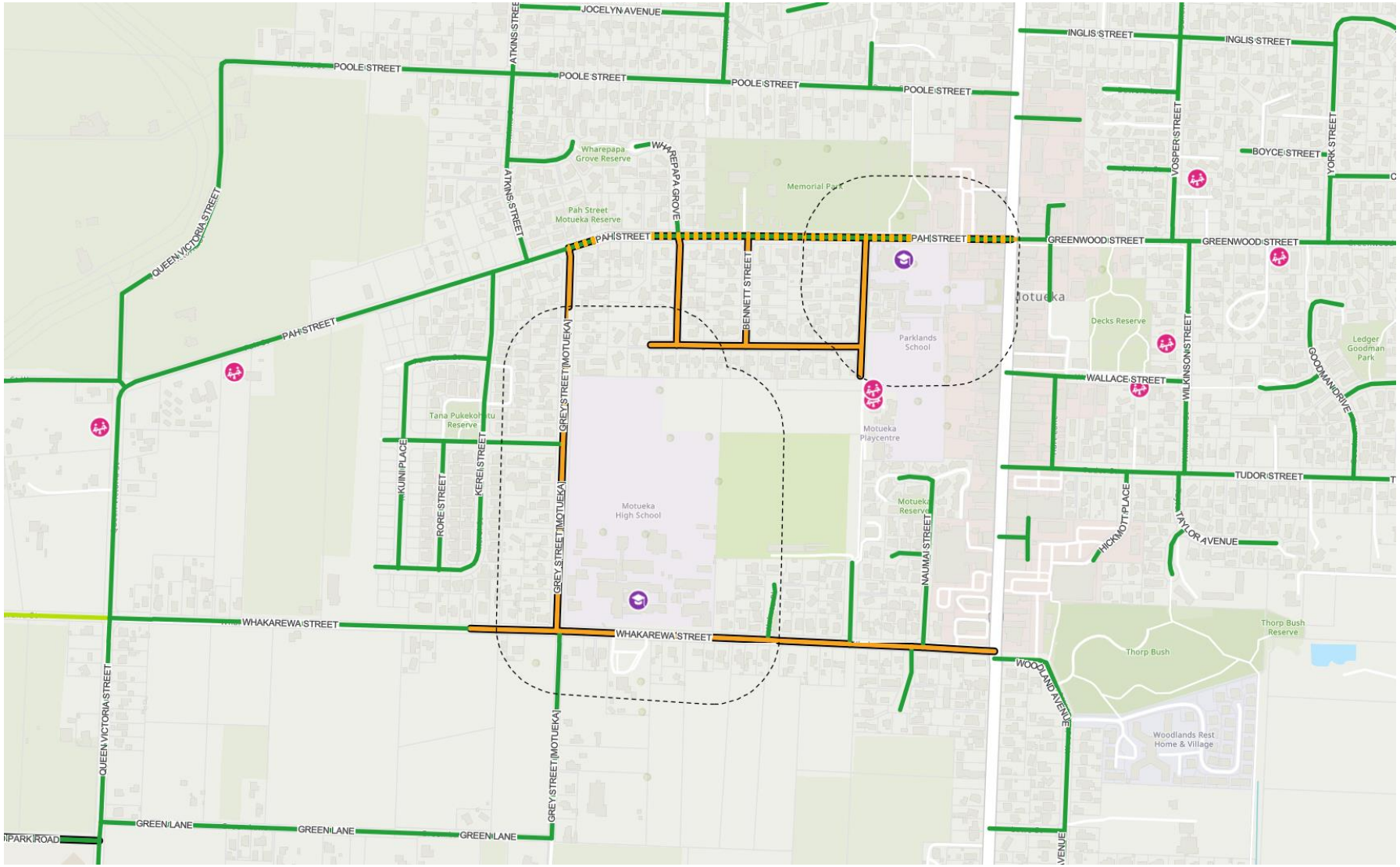
Option 2: High risk, winding unsealed and rural residential



Rural Roads –	2
Outside Schools	30-60
Rural Residential Areas	50-60
Winding and Narrow Unsealed Rural Roads	60
Unsealed Rural Roads	100
High Risk roads and adjacent areas	80
Winding and Narrow sealed Rural Roads	100
All other sealed Rural Roads	100

See school map

- Winding or narrow unsealed roads
- Rural residential areas
- Town Centres
- 80km/h Zone


JOCELYN AVENUE
POOLE STREET
POOLE STREET
POOLE STREET
POOLE STREET
ATKINS STREET
ATKINS STREET
Wharepapa Grove Reserve
WHAREPAPA GROVE
Memorial Park
Pah Street Motueka Reserve
PAH STREET
PAH STREET
PAH STREET
QUEEN VICTORIA STREET
BENNETT STREET
INGLIS STREET
INGLIS STREET
VOSPER STREET
BOYCE STREET
YORK STREET
GREENWOOD STREET
GREENWOOD STREET
Motueka
Decks Reserve
Parklands School
Ledger Goodman Park
WILKINSON STREET
GOODMAN DRIVE
WALLACE STREET
Tana Pukekohatu Reserve
Motueka Playcentre
KUNI PLACE
RORE STREET
KERE STREET
GREY STREET (MOTUEKA)
GREY STREET (MOTUEKA)
Motueka High School
Motueka Reserve
NAUMAI STREET
HICKMOTT PLACE
TAYLOR AVENUE
TUDOR STREET
WHAKAREWA STREET
WHAKAREWA STREET
Thorp Bush Reserve
Thorp Bush
WOODLAND AVENUE
Woodlands Rest Home & Village
QUEEN VICTORIA STREET
GREY STREET (MOTUEKA)
PARK ROAD
GREEN LANE
GREEN LANE
GREEN LANE

BUILDING THE FOUNDATIONS

Targeted Maps

Logical Model

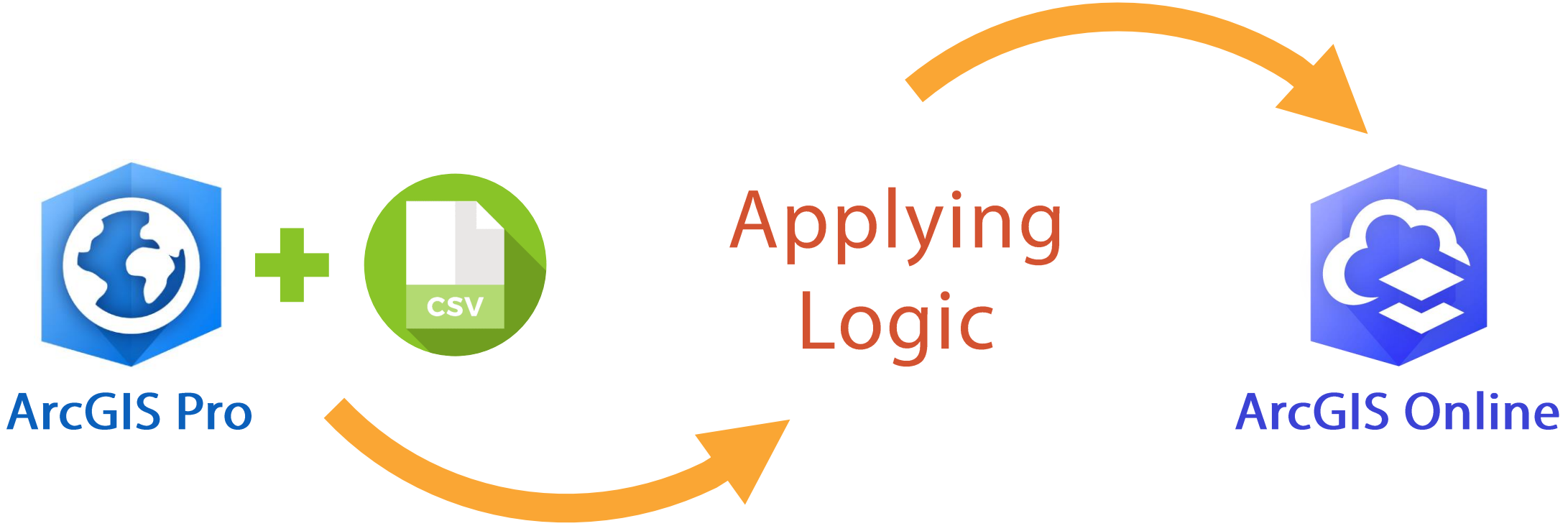
Logical Model

Preparation / Definition

FME by Safe Software

ArcGIS Online

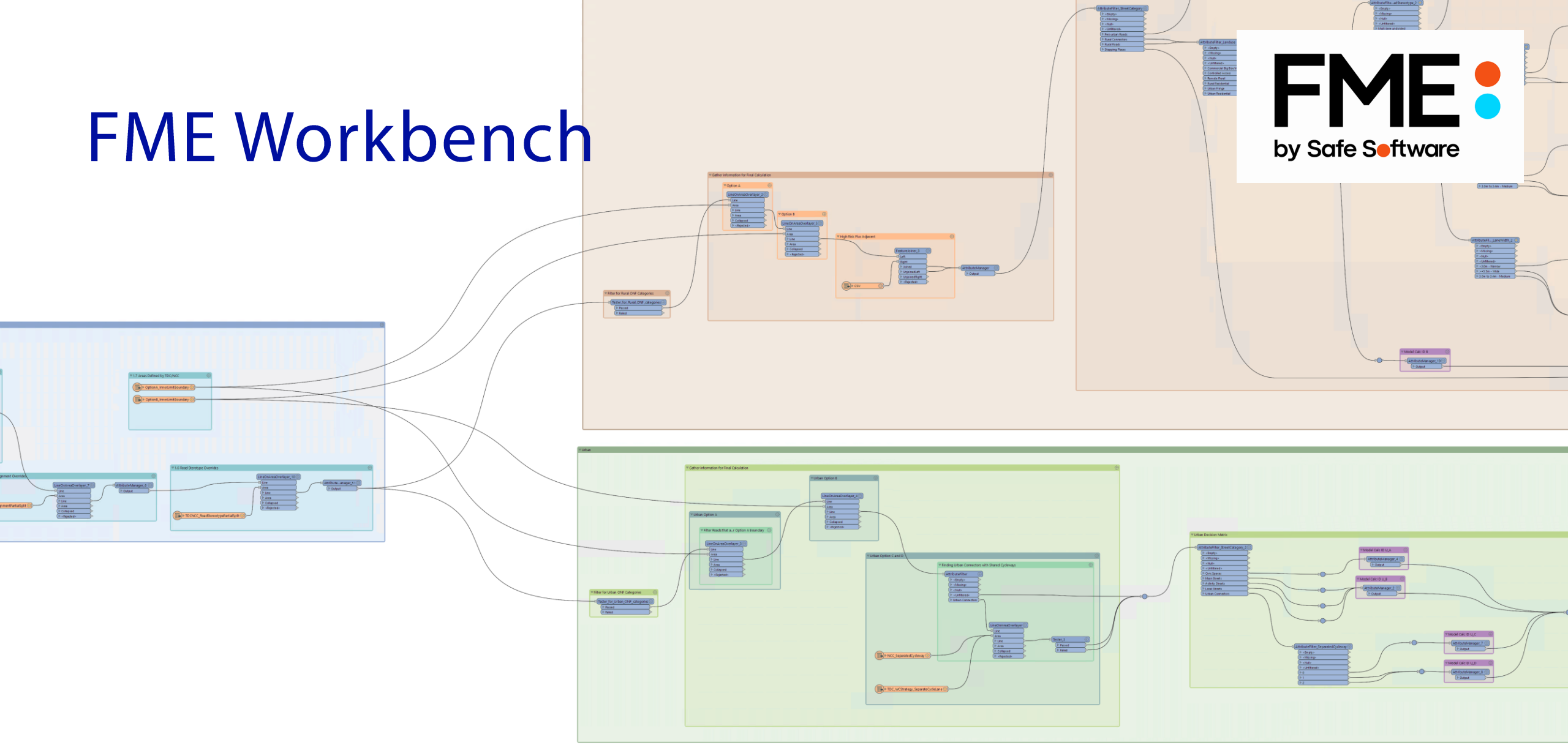
Logical Model



Logical Model

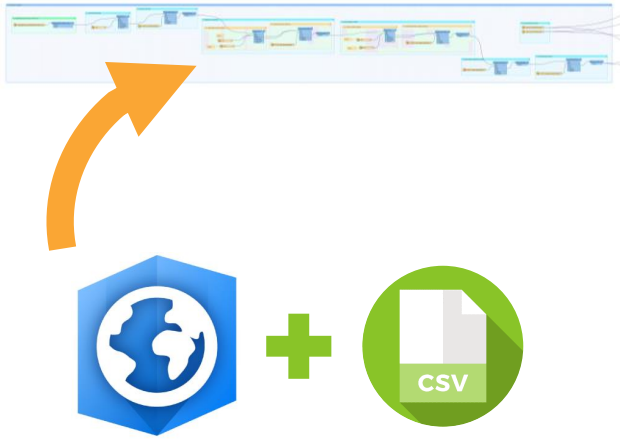
Logical Model

FME Workbench



FME Workbench

Preparation / Definition



Applying Logic

WE ARE PROPOSING FOUR OPTIONS FOR THE RURAL AREA: (km/h)

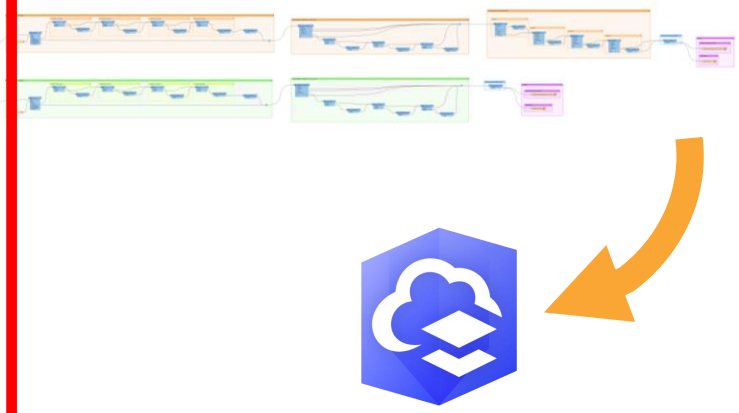
The speeds in Option 4 reflect SAAS and international best practice.

RURAL ROADS	OPTION 1	OPTION 2	OPTION 3	OPTION 4 (SAAS)
Outside schools	30 - 60	30 - 60	30 - 60	30 - 60
Rural residential areas	100	50 - 60	50 - 60	50

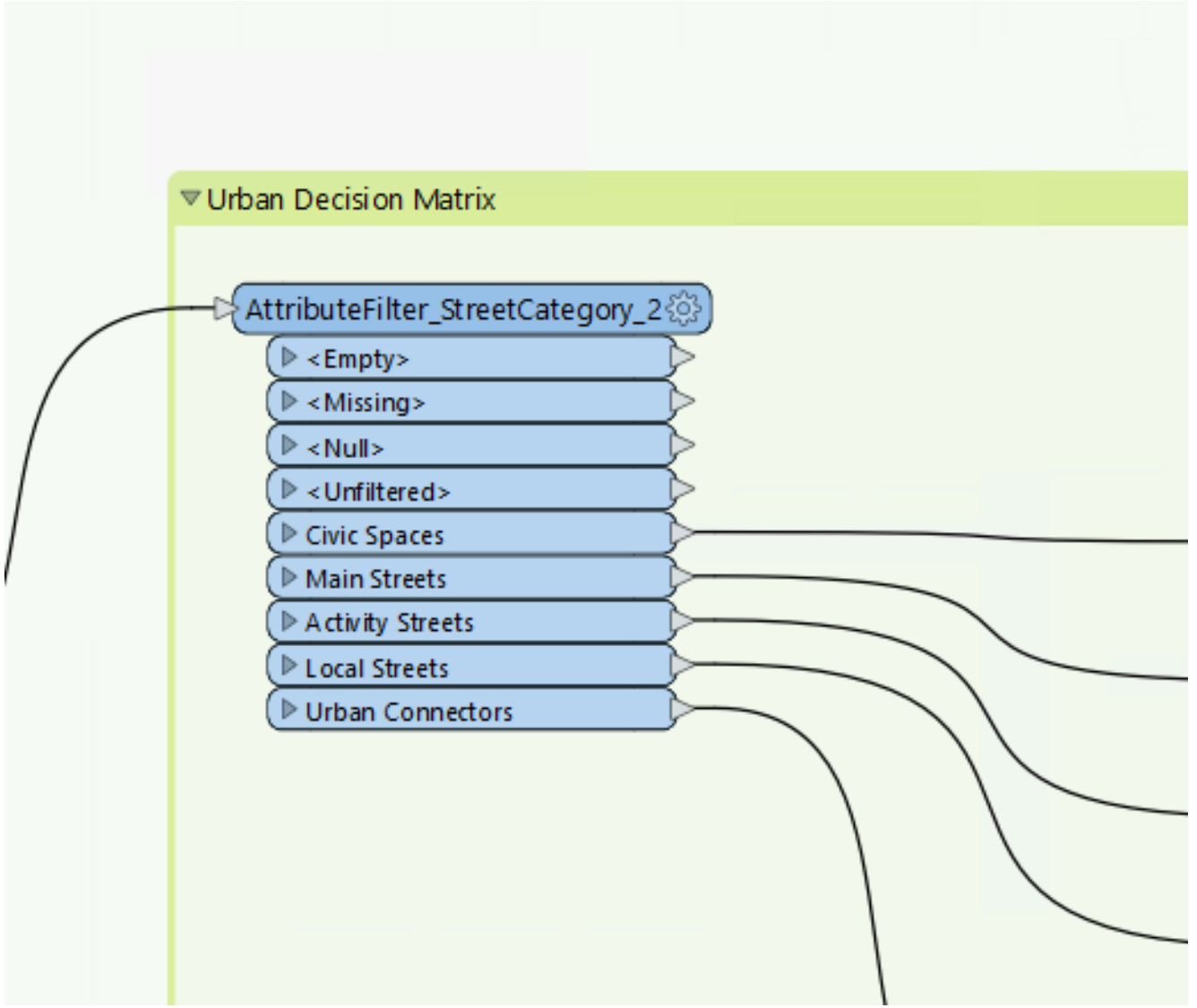
WE ARE PROPOSING FOUR OPTIONS FOR THE URBAN AREA: (km/h)

URBAN ROADS	OPTION A	OPTION B	OPTION C	OPTION D
Outside schools (within 100m of boundary)	30	30	30	30
School neighbourhoods	50	30	40	30
Selected town centres and tourist areas	50	30	40	30
Local urban streets	50	50	40	30
Urban connector streets with separated cycle facilities	50	50	50	50

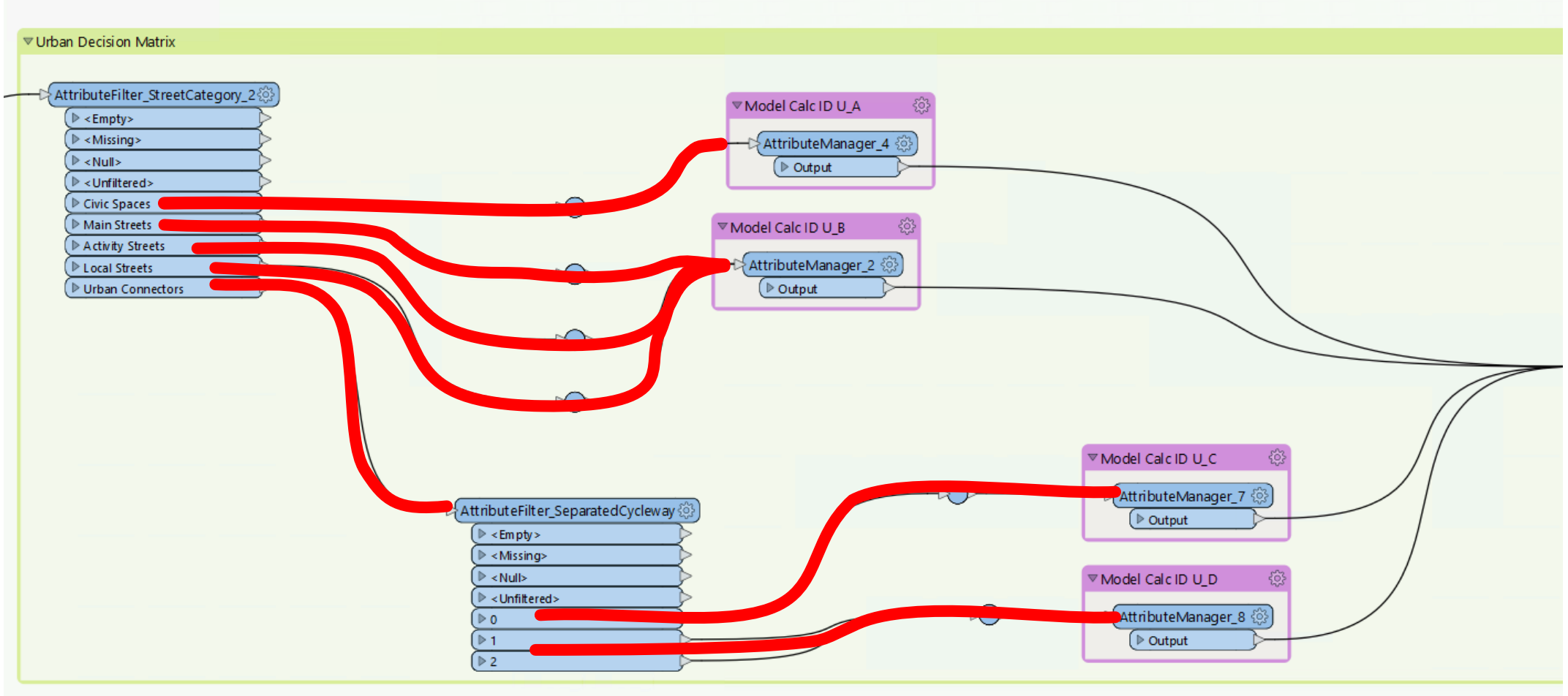
Adding Value



Transformers



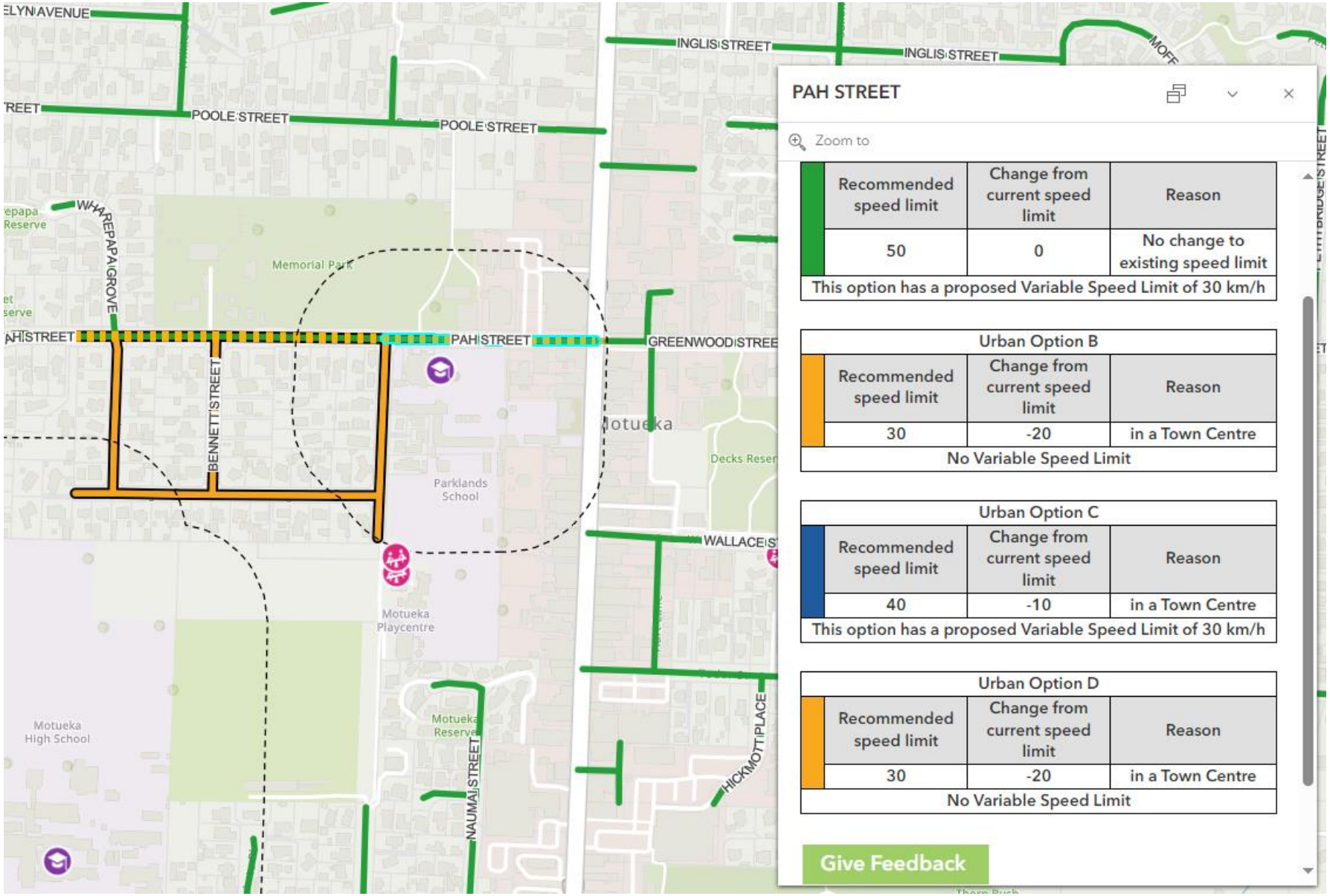
Visualising Logic



ArcGIS Pro
CSV
FME
by Safe Software
ArcGIS Online
QA/QC

USER EXPERIENCE

Map Viewer



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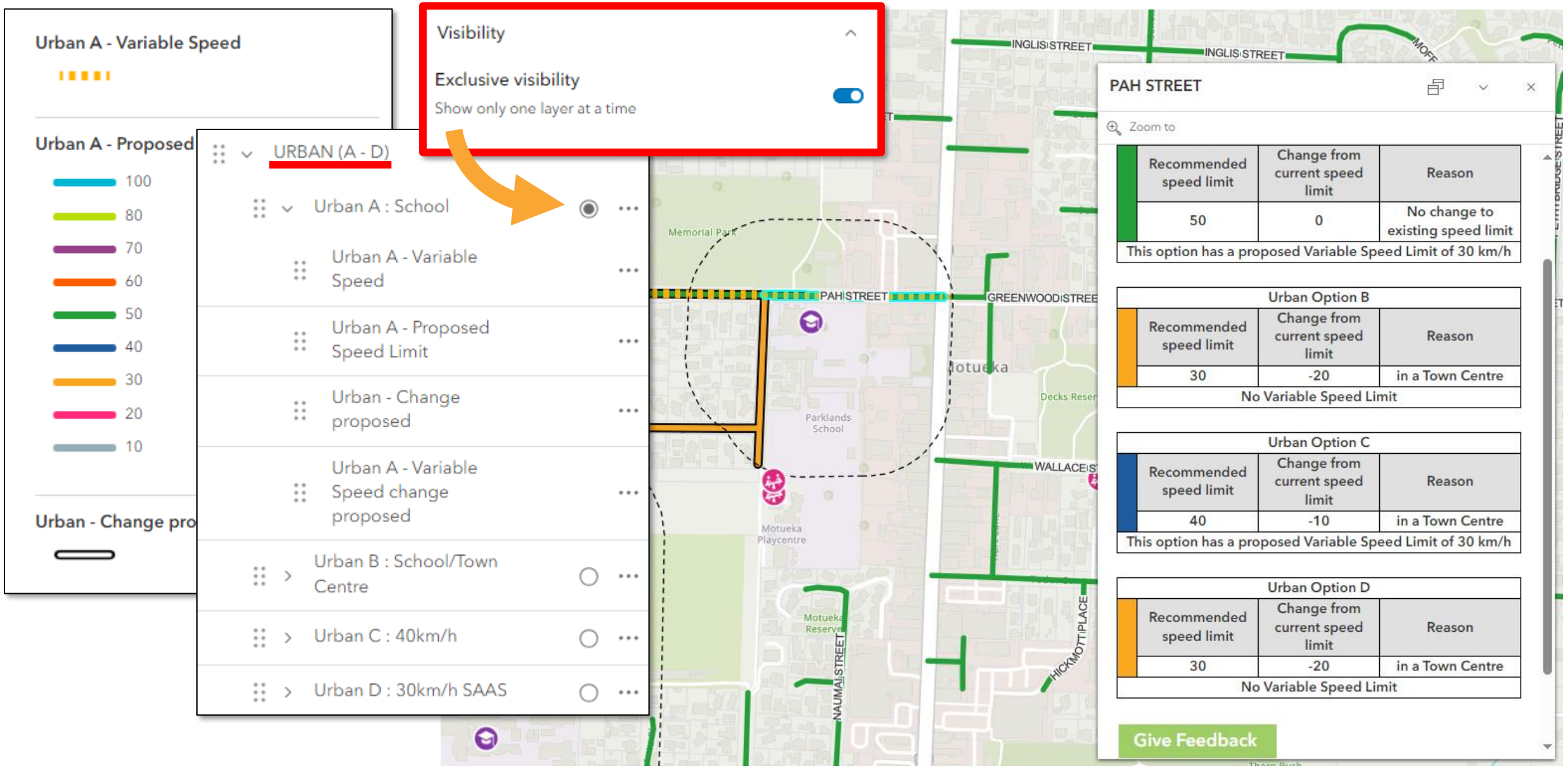

Urban A - Variable Speed
Urban A - Proposed
100
80
70
60
50
40
30
20
10
Urban - Change pro
Visibility
Exclusive visibility
Show only one layer at a time
URBAN (A - D)
Urban A : School
Urban A - Variable Speed
Urban A - Proposed Speed Limit
Urban - Change proposed
Urban A - Variable Speed change proposed
Urban B : School/Town Centre
Urban C : 40km/h
Urban D : 30km/h SAAS
INGLIS STREET
PAH STREET
GREENWOOD STREET
WALLACE ST
HICKMOTT PLACE
NAUMAI STREET
Memorial Park
Parklands School
Motueka Playcentre
Motueka Reserve
Decks Reserve
PAH STREET
Zoom to
Recommended speed limit
Change from current speed limit
Reason
50
0
No change to existing speed limit
This option has a proposed Variable Speed Limit of 30 km/h
Urban Option B
Recommended speed limit
Change from current speed limit
Reason
30
-20
in a Town Centre
No Variable Speed Limit
Urban Option C
Recommended speed limit
Change from current speed limit
Reason
40
-10
in a Town Centre
This option has a proposed Variable Speed Limit of 30 km/h
Urban Option D
Recommended speed limit
Change from current speed limit
Reason
30
-20
in a Town Centre
No Variable Speed Limit
Give Feedback

SpeedColour_OptionA A.K.A. {expression/expr0}

Run

```
// Write a script to return a value to show in the pop-up.
// For example, get the average of 4 fields:
// Average($feature.SalesQ1, $feature.SalesQ2, $feature.SalesQ3, $feature.SalesQ4)
When($feature.OptA_RecommendedSpeed==110, "#A37530",
$feature.OptA_RecommendedSpeed=='100', "#00B6D2",
$feature.OptA_RecommendedSpeed=='90', "#F1E100",
$feature.OptA_RecommendedSpeed=='80', "#B6DF07",
$feature.OptA_RecommendedSpeed=='70', "#954087",
$feature.OptA_RecommendedSpeed=='60', "#FF5F00",
$feature.OptA_RecommendedSpeed=='50', "#249F3A",
$feature.OptA_RecommendedSpeed=='40', "#1F5B9F",
$feature.OptA_RecommendedSpeed=='30', "#F9A91F",
$feature.OptA_RecommendedSpeed=='20', "#FF2B76",
$feature.OptA_RecommendedSpeed=='10', "#97B0BA", "#FFFFFF")
```

<th style="background-color:{expression/expr0};border-collapse:collapse;border:1px solid black;width:5%;" rowspan="2">

Urban - Change proposed

HOLLIS PLACE

Get directions Zoom to

Current Posted Speed Limit : 50 km/h
ONF Street Category : Local Streets

Options for this road (km/h)

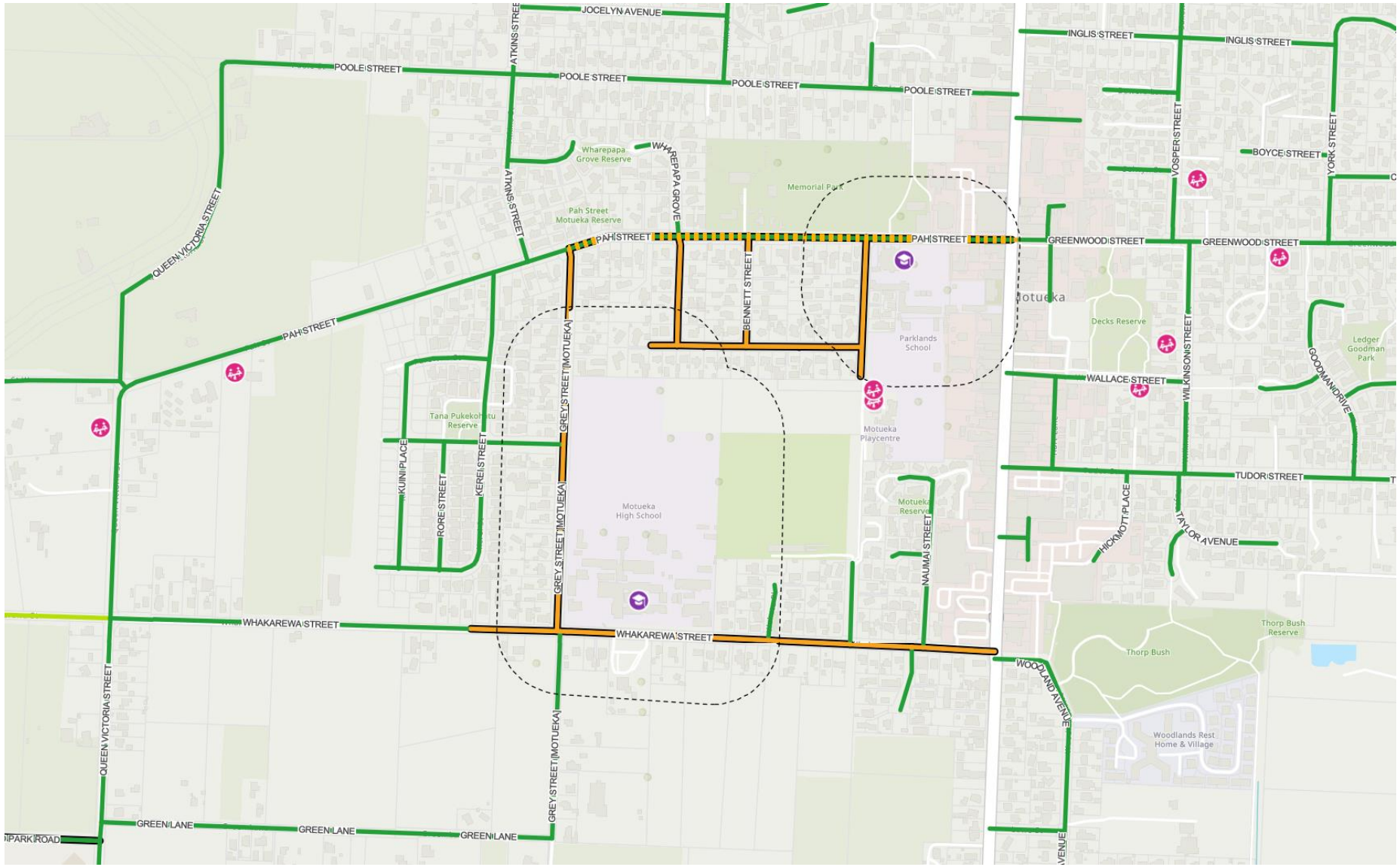
Urban Option A		
Recommended speed limit	Change from current speed limit	Reason
50	0	No change to existing speed limit
No Variable Speed Limit		

Urban Option B		
Recommended speed limit	Change from current speed limit	Reason
30	-20	in a School Neighbourhood
No Variable Speed Limit		

Urban Option C		
Recommended speed limit	Change from current speed limit	Reason
40	-10	in a School Neighbourhood
No Variable Speed Limit		

THE END RESULT

Basic Instant App



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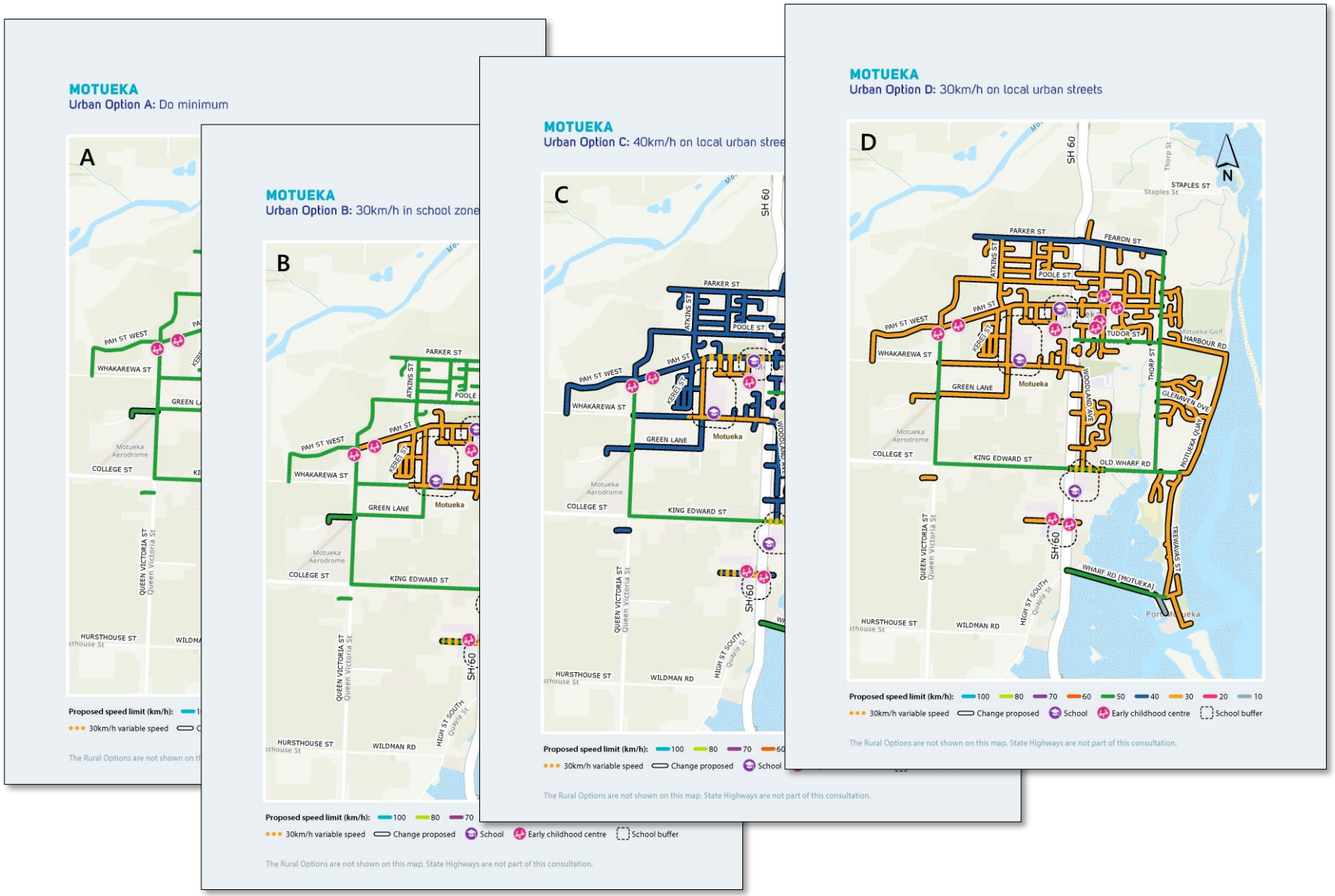
Products



PDF

PNGs

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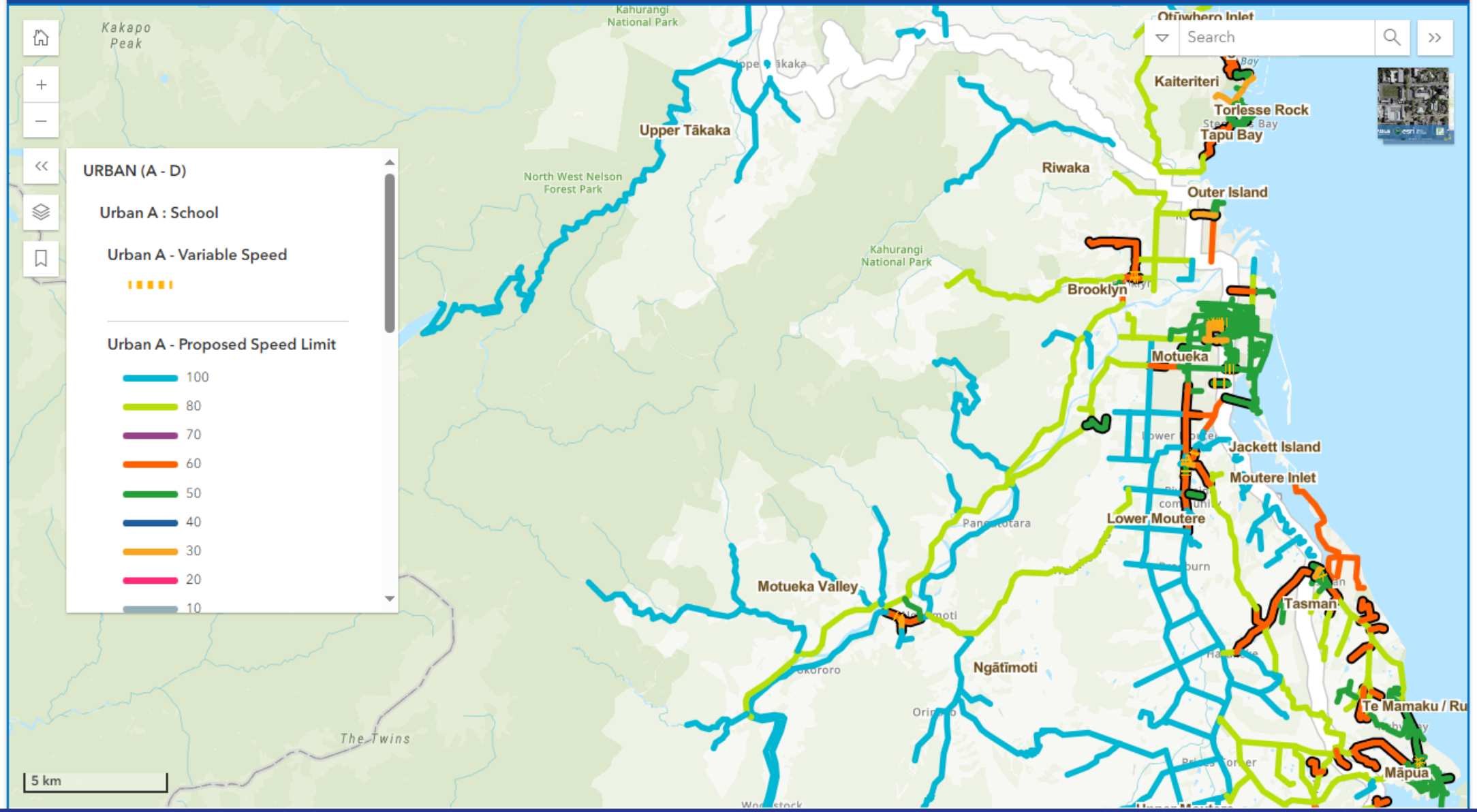
TDC & NCC : Speed Management Review 2023/24 : Options



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shape.tasman.govt.nz/speed-review

Melissa Brooks
Tasman District Council