

Appendix F

Road Asset Data Standard Specification

SPECIFICATION FOR RAMM UPDATING OF ROADS

1. SCOPE

This specification sets out the general requirements for consultants specialising in, and being fully conversant with Road Assessment and Maintenance Management (RAMM) procedures and requirements.

The coverage being:

- (a) the existing dedicated roads (either in whole, part thereof, or specified) under the control of the Franklin District Council
- or (b) developers roads awaiting dedication through the Council's planning procedures
- or (c) following physical works by Contractors on Council's roads.

2. RAMM REQUIREMENTS

The tasks indicated below shall be carried out in compliance with the latest edition of the New Zealand Transport Agency "RAMM: Road Condition Rating & Roughness Manual. The RAMM Consultant shall prepare new inventory data as hard copy in a form suitable for inputting into the RAMM database. The RAMM Consultant shall supply documentary evidence that the collection of the inventory data has been carried out satisfactorily by experienced RAMM Certified persons and in accordance with the quality plan. This person at a minimum shall hold a current RAMM Condition Rating Certificate or similar, and be familiar with the RAMM Inventory Collection process. The Contractor, on the consultant's behalf, shall submit supporting documentation showing the RAMM person is suitably qualified. The inventory data required is that to complete all fields in the following tables: -

- carriageway
- shoulders and surface water channels
- drainage
- berms and footpaths
- pavement structure and surfacing
- traffic facilities
- features
- minor structures

3. QUALITY ASSURANCE

The consultant shall have a quality plan to ensure proper internal procedures and control checks are used by the staff throughout the project. The consultant shall be responsible for checking the quality assurance requirements of the Contractor and ensuring that all matters of quality assurance and quality control

for all aspects of the contract are observed.

4. **HEALTH AND SAFETY ACT**

When working on roads all reasonable care must be taken by staff for their own safety by use of high visibility coloured clothing and other suitable equipment as may be necessary. For the safety of the general public as well as staff, appropriate NZTA approved signs are required to cover the area of work. All vehicles shall be equipped with amber flashing lights.

5. **HEALTH AND SAFETY PLAN**

Consultants are required to complete the Consultant Safety Pre-Qualification Form at the time of tender.

6. **GENERAL INFORMATION**

Any available current information required by the Consultant will be supplied by Opus International Consultants on behalf of the Client. This will be applicable to Consultants acting for developers or contractors.

7. **NEW WORKS INFORMATION**

RAMMS information following completion of physical works is required from:

- (a) Developers - prior to approval of the Certificate of Completion (224c).
- (b) Contractors - prior to approval of the certificate of completion.

8. **APPENDIX**

Standard Forms for RAMM Data Collection

- (a) Street Light Inventory Management
- (b) Road Carriageway, Drainage, and Shoulders
- (c) Surface Water Channels (SWC), and Footpaths
- (d) Pavement Structure,
- (e) Pavement Surfacing and Traffic Markings,
- (f) Traffic Signs,
- (g) Crossings, Berm, and Features,
- (h) Guardrails and Minor Structures

STREET LIGHT INVENTORY MANAGEMENT

Road Name		Client	
Road ID		Date	
Start Displace		Surveyed By	
End Displace		Entered	

Pole Information

Displacement		LH Boundary	
Side		Material	
Offset		Shape	
Owner		Make	
Purpose		Pole No.	
Date Installed		Date Replaced	

House Number Features

Flat No.		A/B/C etc		House No.		Feature	
This Side							
Opposite							

Dimensions

Level	
Use Height	

Intersects With Road

Road ID	
Road Name	
Start Displace	
End Displace	
Displacement	
Side	

Bracket Information

Type	
Angle	
Height	
Date Installed	
Date Replaced	

Light Information

Supply Point		UG		OH		UG		OH	
Make									
Model									
Lamp Wattage									
Light Status									
Date Installed									
Date Replaced									
Comments									

STREET LIGHT INVENTORY MANAGEMENT

Road Name		Client	
Road ID		Date	
Start Displace		Surveyed By	
End Displace		Entered	

Pole Information

Displacement		LH Boundary	
Side		Material	
Offset		Shape	
Owner		Make	
Purpose		Pole No.	
Date Installed		Date Replaced	

House Number Features

Flat No.		A/B/C etc		House No.		Feature	
This Side							
Opposite							

Dimensions

Level	
Use Height	

Intersects With Road

Road ID	
Road Name	
Start Displace	
End Displace	
Displacement	
Side	

Bracket Information

Type	
Angle	
Height	
Date Installed	
Date Replaced	

Light Information

Supply Point		UG		OH		UG		OH	
Make									
Model									
Lamp Wattage									
Light Status									
Date Installed									
Date Replaced									
Comments									

Client _____ Surveyed by _____ Entered By _____
 Project No. _____ Date Surveyed _____ Date Entered _____

Carriageway Information

Opus K13: 2010

Road ID. _____ Road Name _____
 Start Displacement _____ Start Name _____
 End Displacement _____ End Name _____
 Local Area _____

Miscellaneous

Class _____ Length _____ m
 Urban/Rural U R Width _____ m
 Hierarchy C T U R Width _____ m
 Pavement Type S Irregular I R No. _____
 Pavement Use (1-7) _____ Lanes _____

Carriageway

Owner _____ Crown Private TLA
 Other Areas m² _____
 Intersection Area m² _____
 Bus Bay Area m² _____
 Island Area m² _____
 (to be entered in the traffic volume table)

Extra Areas Working Out Space

Extra Area _____ Islands _____
 Bus Bays _____ Intersections _____

Drainage

CP1 CP2 CP3 CUL DAM GRID DWELL DCHM FLUME M HOLE OTHER OFCUL SCOUR
 SDCUL SIDE SP SPILL SC2 SC1 SUB SUMP SWC WR WEIR CP4 DCP1 HWFS SS STOCK
 UKN VXING ALUFL BFCP CPMH CULMH DG DRCP KECP LFCP MMH RFCP SD SFCP
 SRCP SWMH TRCP

CULVERT INLET/OUTLET CP DC FL GD HC HT MH N OT RC RH SB Y G C GA SM UK PW

Road ID.								
Type (see above)								
Date Constructed								
Carr'way Start Displ.								
Displacement of Feature								
Offset								
Side	L R E	L R E	L R E	L R E	L R E	L R E	L R E	L R E
Length								
Height/Diameter								
Culvert Intake	Y N G	Y N G	Y N G	Y N G	Y N G	Y N G	Y N G	Y N G
Culvert Outlet	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Material								
Culvert Type								
Culvert Width								

Surface Water Channels

Opus K13: 2010

DA Dish Channel (Asphalt), DC Dish Channel (Conc), DP Dish Channel (Half Pipe), DS Dish Channel (Sealed), KCC Kerb & Channel (Conc), KCS Kerb & Channel (Stone), KDC Kerb & Dished Channel (Conc), KC Kerb only (Conc), KS Kerb only (Stone), MKCC Mountable Kerb & Channel (Conc), MKC Mountable Kerb only (Conc), OTHER Other type not listed (comments section please), SWCD Surface Water Channel (Deep >200mm), SWCS Surface Water Channel (Shallow <200mm), SLTC Slot Channel (Conc), UKN Unknown, CC Channel Only (Conc), FLCK Flushed Level Concrete Kerb, KN Kerb and Nib (Conc), KBS Kerb Slots Conc

Road ID.								
Side	L R	L R	L R	L R	L R	L R	L R	L R
Start Displacement								
End Displacement								
Length								
Distance to Seal								
Type (see above)								
Date Constructed								

Verge - Footpaths

E Accessway (Ends away from road - must include details in Joints to Road section), J Accessway (Joins another road - must include details in Joints to Road section), B Boundary, K Kerb, L Loop footpath, M Middle, R Remote from Road, U Unknown, W Whole Width, P Accessway (Road Joins Park Reserve), S Berm (Pedestrian Safety)

Road ID.								
Position	B M K	B M K	B M K	B M K	B M K	B M K	B M K	B M K
	E J L R	E J L R	E J L R	E J L R	E J L R	E J L R	E J L R	E J L R
Side	L R	L R	L R	L R	L R	L R	L R	L R
Start Displacement								
End Displacement								
Length								
Width								
Step Length								
Extra Area								
Purpose	F C B	F C B	F C B	F C B	F C B	F C B	F C B	F C B
Use (1 - 5)								
Local Name								
Start Name								
End Name								
Date Constructed								
Material								
Depth								
Size/Grade								

Joins to Road

Road ID.								
Carriageway Start								
Carriageway End								

Start Displacement								
Side	L R	L R	L R	L R	L R	L R	L R	L R

Pavement Layer and Rehabilitation

Opus K13: 2010

Road No.		Road Name	
Start Displacement		Start Name	
End Displacement		End Name	
Layer One (Basecourse)		Material	
Type	L S	Offset (m)	Depth
Date		Width (m)	Source
		Rehab In	
		Full Width	Y / N
Layer Two		Offset (m)	Material
Type	L S	Width (m)	Depth
Date		Rehab In	Source
		Full Width	Y / N
Layer Three		Offset (m)	Material
Type	L S	Width (m)	Depth
Date		Rehab In	Source
		Full Width	Y / N
Subgrade Layer		Offset (m)	Material
Type	L S	Width (m)	CBR %
Date		Rehab In	
Rehabilitation Details (F1)		Width (m)	Type R S
Start		Offset	Agent
End		Depth	Quantity

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[illegible]

Verge – Crossings

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BK Beveled Kerb, **BR** Bridge, **CR** Cycle Ramp, **HD** Heavy Duty, **OT** Other,
PA Property Access, **PC** Pram Crossing, **RC** Rural Concrete, **RG** Rural
 Gravel, **RS** Rural Sealed, **SL** Slot, **UN** Unknown, **RV** Rural Culvert Vehicle
 Crossing

Road ID.								
Carriageway Start								
Side	L B R	L B R	L B R	L B R	L B R	L B R	L B R	L B R
Type								
Quantity								
Date								

Verge - Berm

C Cover, **F** Flowers, **FC** Flowers/Cover, **FS** Flowers/Shrubs, **FSC** Flowers/Shrubs/Cover, **G**
 Grass,
GC Grass/Cover, **GF** Grass/Flowers, **GFS** Grass/Flowers/Shrubs, **GFSC**
 Grass/Flowers/Shrubs/Cover,
GS Grass/Shrubs, **S** Shrubs, **SC** Shrubs/Cover

Road ID.								
Carriageway Start								
Side	L B R	L B R	L B R	L B R	L B R	L B R	L B R	L B R
Start Displacement								
End Displacement								
Length								
Width								
Type	B L	B L	B L	B L	B L	B L	B L	B L
Plants								
Trees								

Features

Road ID.								
Displacement								
Offset (from CL)								
Side	L C R	L C R	L C R	L C R	L C R	L C R	L C R	L C R
	B NA	B NA	B NA	B NA	B NA	B NA	B NA	B NA
Feature Type								
Date								

Traffic Guardrails

Opus K13: 2010

Rail Start & Rail End: *BP* Bridge Plate, *BN* Bull nose, *CE* Cable End, *FB* Fishtail/Butterfly End, *MC* M23 Compliant, *RE* Regent, *TE* Terminal End, *TT* Texas Twist, *UN* Unknown, *BCT* Breakaway Cable Terminal, *CON* Continuous, *FL35* Fleet 350, *FLB* Flared Concrete Buttress, *NE* No End Terminal, *NS* No Specials

Road ID.								
Start Displacement								
End Displacement								
Type								
Length								
Side	L R	L R	L R	L R	L R	L R	L R	L R
Offset								
Width								
Shape	C S T	C S T	C S T	C S T	C S T	C S T	C S T	C S T
Rail Start								
Rail End								
Date								

Joins to Road

Road ID.								
Displacement								
Side	L R	L R	L R	L R	L R	L R	L R	L R

Minor Structures

Road ID.								
Displacement								
Offset (from CL)								
Side	L C R	L C R	L C R	L C R	L C R	L C R	L C R	L C R
	B NA	B NA	B NA	B NA	B NA	B NA	B NA	B NA
Minor StructureType								
Date								

Shoulders

Road ID.								
Side	L R	L R	L R	L R	L R	L R	L R	L R
Start Displacement								
End Displacement								
Length								
Type								
Width								