Coordinated Imagery Program Expression of Interest Form

About this Application

This application is for lodging an Expression of Interest to become a Purchase Partner on the capture of aerial photography and/or elevation data (LiDAR) with the Department of Environment, Land, Water and Planning's (DELWP) Coordinated Imagery Program (CIP).

Supplementary Documentation: ***Height Displacement Theory, Specifications and Examples***

Primary Point of Contact

Please designate a single primary point of contact for this project. In the event that you are or will be utilising a flexible workplace arrangement (job share, taking extended leave, etc) during the project you may include multiple points of contact, but please try to keep us informed of the details (e.g.: part-time days, handover dates).

1. Personal Details

Title: Mr./Ms.

Given name(s)

Surname

2. Business Details

Company name

Office/Unit No.

Street No.

Street name

City/Suburb/Town

Postcode

ABN

DX

3. Your Contact Details

Telephone No.

Mobile No.

Email: gis@

4. Date of Lodging

Date: dd/mm/yyyy

5. Additional Contact Details

Provide below if necessary

Reset Form

VICTORIA State Government | Environment, Land, Water and Planning

Project Scope

The section below relates to the broader scope of your project.

1. Capture Type

Select [x] the desired type of capture for imagery or elevation products.

Aerial Photography

- ☐ True Colour only (RGB)
- ☐ True Colour and Infra-red (RGBI)
- ☐ Infra-red only

Satellite Imagery

- ☐ Multi Spectral

Elevation

- ☐ LiDAR
- ☐ Photogrammetry (Aerial Photography)

2. Intended Use

This is for inclusion into the request for quote (RFQ) and specification documents sent out to contractors and may be used by CIP to offer suggestions and technical feedback on project plans. More information may result in a more appropriate product.

e.g.: Asset monitoring, environmental management, etc.

3. Period of Contract

Select [x] the desired contract length for capture.

- ☐ Single year
- ☐ Two years
- ☐ Three years
- ☐ Other (please specify)

Captures Per Year

Will multiple captures across different time periods within the one year (“epochs”) be required? If so, how many?

e.g.: Separate Summer and Autumn captures would be two epochs. These are then defined in the Capture Window section overleaf.

- ☐ Single epoch
- ☐ Two epochs
- ☐ Three epochs
- ☐ Other (please specify)

4. Capture Window

Over what time period is the capture to ideally occur? If requesting a multi-year contract, please specify dates for the first year.

Note that the time between accepting an Expression of Interest and capture commencement is typically a minimum of four weeks. Naturally, this increases for complex projects with additional partners.

Single Epoch Capture

Start date

dd/mm/yyyy

End date

dd/mm/yyyy

Multi Epoch Capture

Epoch 1: Start date

dd/mm/yyyy

Epoch 1: End date

dd/mm/yyyy

Epoch 2: Start date

dd/mm/yyyy

Epoch 2: End date

dd/mm/yyyy

Epoch 3: Start date

dd/mm/yyyy

Epoch 3: End date

dd/mm/yyyy

Please attach an additional document if more than three epochs are required.

Flexibility

Are these dates flexible?

A flexible capture window enables CIP to potentially find more partners, reducing the cost.

☐ Yes ☐ No

If yes, please specify to what extent the capture windows can be changed. Is capture in a later season acceptable?

5. Delivery Time Frames

Select [x] an acceptable time frame from end of acquisition to delivery, and whether intermediate products are needed.

A relaxed timeframe may enable us to potentially negotiate down the cost. Please note that customised data packaging will generally take one week longer than if your capture aligns with the entire project. All timeframes are merely targets and are contingent upon successful passing of QA.

Acquisition to Delivery Timeframe (Processing + QA + Packaging)

☐ Usual timeframe (5-6 weeks)

☐ Relaxed timeframe (7-8 weeks)

☐ Other (please specify):

Rapid Delivery Products (if required)

Optional intermediate lower specification product. May only be available from a limited number of providers.

☐ One week

☐ Two weeks

☐ Other (please specify):

6. Area / Location

Please describe your location. Possible information to include:

- LGA or CMA
- Management area
- Project area
- Townships
- Area in km², etc
- Are full image tiles required?

Rural and Urban/Towns

Do you require separate rural and urban/towns capture at different specification?

☐ Yes ☐ No

Entire Survey Area or Rural Capture

☐ Extent file supplied (please specify filename)

.shp

☐ Buffer distance required (km)

km

Urban / Towns Capture (if required)

☐ Extent file supplied (please specify filename)

.shp

☐ Buffer distance required (km)

km

Use these if you would like CIP to add a buffer. If the buffer is already applied within the shape file, please leave them blank.

7. Header Format and Projection

Select [x] the desired format(s) below.

GIS Header Format

☐ World Files (EWW, TFW, JPW, etc)

☐ MapInfo TAB

☐ Other (please specify)

Projection – Datum: GDA2020

☐ MGA zone 55 (EPSG**:** 7855)

☐ MGA zone 54 (EPSG**:** 7854)

☐ VicGrid (EPSG: 7899)

☐ Other (please specify)

Projection – Datum: GDA94

☐ MGA zone 55 (EPSG: 28355)

☐ MGA zone 54 (EPSG: 28354)

☐ VicGrid (EPSG: 3111)

☐ Other (please specify)

If you are requesting LiDAR elevation products only, please skip ahead to the following: Technical Specifications: Elevation.

Technical Specifications: Imagery

The section below is used to specify your required GIS format, image format, projection and datum.

CIP generally recommends the following specifications for imagery:

Digital Products	Pre-fill
ECW format mosaics TIFF format tiles	

Rural Capture	Pre-fill	Urban / Towns Capture	Pre-fill
1 km tile size		1 km tile size	
20 cm resolution		10 cm resolution	
± 4 pixel accuracy		± 2 pixel accuracy	
Complete colour balancing		Complete colour balancing	
Seamless edge matching		Seamless edge matching	
2.5:1 height displacement		2.5:1 height displacement	

1. Digital Products

Select [x] the desired product(s) below.

Products

☐ Mosaics ☐ Tiles

Mosaic Format (if selected)

☐ ECW

☐ JPEG2000 ☐ JPEG

☐ Other (please specify)

Tile Format (if selected)

☐ TIFF (Uncompressed) ☐ ECW

☐ JPEG2000 ☐ JPEG

☐ Other (please specify)

The following pages are used to specify your required tile size, resolution, quality considerations and height displacement for each capture area. If you don't need separate rural and towns capture, please complete the first section only.

2. Entire Capture Area or Rural Capture

Select [x] the desired specs below.

Tile Size (if selected)

- ☐ 1 km
- ☐ 2 km (due to TIFF file size concerns, ≥20 cm resolution only)
- ☐ Other (please specify)

Resolution

- ☐ 0.06 m (ground level detail, recommended for municipal council applications such as asset management, mapping of building footprints and road infrastructure projects)
- ☐ 0.10 m (very detailed feature recognition, potential for engineering/survey applications, generation of 0.5m contours)
- ☐ 0.15 m (detailed feature recognition, generation of 1m contours)
- ☐ 0.20 m (very good feature recognition, monitoring urban changes or forestry activities)
- ☐ 0.35 m (good feature recognition, monitoring urban growth or forest decline)
- ☐ 0.50 m (limited feature recognition, general change over time applications)
- ☐ 1 m (urban vs rural feature recognition, broad-scale overview applications)
- ☐ Other (please identify resolution required)

Quality Considerations

	High	Medium	Low
Spatial Accuracy	☐ ± 2 pixels	☐ ± 4 pixels	☐ >4 pixels
Colour Balancing	☐ Complete	☐ Partial	☐ Not Required
Edge Matching	☐ Seamless	☐ Partial	☐ Not Required

Height Displacement

This section relates to your acceptance of height displacement such as building lean expressed as a ratio of height to horizontal displacement. Select [x] the most suitable. If a subset of this area has more stringent height displacement requirements, you may select a second option.

*Increased tolerance for lean can reduce costs. For further guidance, please request the **Height Displacement Theory, Specifications and Examples** document.*

- ☐ 2:1 - Potential for extreme lean of elevated features.
  Typically used for flat terrain with minimal vertical structures (e.g. flat terrain with sparse population/buildings).
- ☐ 2.5:1 - Some lean of elevated features is acceptable.
  Typically, for areas with a number of vertical structures (e.g. suburban and rural townships with minimal tall buildings).
- ☐ 4:1 - Minimal lean of elevated features is acceptable.
  Typically, in areas of a high number of tall vertical structures (e.g. metropolitan/CDB areas with buildings 5-40m in height).
- ☐ 6:1 - Near vertical view of elevated features is required.

If a subset of this area of interest has more stringent height displacement considerations, please attach the extent below.

.shp

3. Urban / Towns Capture

Select [x] the desired specs below.

Tile Size (if selected)

☐ 1 km

☐ 2 km (due to TIFF file size concerns, ≥20 cm resolution only)

☐ Other (please specify)

Resolution

☐ 0.06 m (ground level detail, recommended for municipal council applications such as asset management, mapping of building footprints and road infrastructure projects)

☐ 0.10 m (very detailed feature recognition, potential for engineering/survey applications, generation of 0.5m contours)

☐ 0.15 m (detailed feature recognition, generation of 1m contours)

☐ 0.20 m (very good feature recognition, monitoring urban changes or forestry activities)

☐ 0.35 m (good feature recognition, monitoring urban growth or forest decline)

☐ 0.50 m (limited feature recognition, general change over time applications)

☐ 1 m (urban vs rural feature recognition, broad-scale overview applications)

☐ Other (please identify resolution required)

Quality Considerations

	High	Medium	Low
Spatial Accuracy	☐ ± 2 pixels	☐ ± 4 pixels	☐ >4 pixels
Colour Balancing	☐ Complete	☐ Partial	☐ Not Required
Edge Matching	☐ Seamless	☐ Partial	☐ Not Required

Height Displacement

This section relates to your acceptance of height displacement such as building lean expressed as a ratio of height to horizontal displacement. Select [x] the most suitable. If a subset of this area has more stringent height displacement requirements, you may select a second option.

*Increased tolerance for lean can reduce costs. For further guidance, please request the **Height Displacement Theory, Specifications and Examples** document.*

☐ 2:1 - Potential for extreme lean of elevated features.
Typically used for flat terrain with minimal vertical structures (e.g. flat terrain with sparse population/buildings).

☐ 2.5:1 - Some lean of elevated features is acceptable.
Typically, for areas with a number of vertical structures (e.g. suburban and rural townships with minimal tall buildings).

☐ 4:1 - Minimal lean of elevated features is acceptable.
Typically, in areas of a high number of tall vertical structures (e.g. metropolitan/CDB areas with buildings 5-40m in height).

☐ 6:1 - Near vertical view of elevated features is required.

If a subset of this area of interest has more stringent height displacement considerations, please attach the extent below.

.shp

If you are not requesting elevation products, please skip ahead to the following: Budget and Partnering.

Technical Specifications: Elevation

The section below is used to specify your point cloud for (typically) LiDAR surveys and DEM for LiDAR and/or photogrammetry.

CIP generally recommends the following specifications for elevation:

LiDAR	Pre-fill	Photogrammetry
4 pts/m² point/pulse density ± 10 cm vertical accuracy (68% conf., 1 σ) Level 2 classification 4+ returns (terrain dependant) 40° scan angle 1 m DEM, no contours		Depends on imagery resolution.

1. Point Cloud (LiDAR)

Select [x] the desired specification below.

Point/Pulse Density/Emitted

☐ 4 pts/m² (sufficient for most general purposes, including vegetation mapping)

☐ 8 pts/m² (recommended for vegetation mapping)

☐ 12 pts/m²

☐ 16 pts/m²

☐ Other (please specify)

Vertical Accuracy (RMSE at 68% Confidence Interval / 1 σ)

± cm

Further Specifications

☐ Level 2 classification, 4+ returns (terrain dependant), 40° scan angle

☐ Other (please specify)

2. Raster Elevation Data (LiDAR and Photogrammetry)

Select [x] the desired specification below.

DEM Resolution

☐ 1 m

☐ 2 m

☐ Other (please specify)

Contours

Do you also require contours?

☐ Yes ☐ No

If so, please specify contour interval (recommended interval = ½ DEM Resolution)

m

Budget and Partnering

The section below relates to the financial constraints placed upon your project.

1. Budget Planning

Do you require a price estimate before going for a request for quote?

☐ Yes ☐ No

When do you require the price estimate by?

dd/mm/yyyy

After notification of your final cost within what time period are you able to give the go ahead that you'd like to become a partner?

e.g.: One week, etc.

2. Budget

Select [x] which of the following best describes your budget scenario.

The budget information provided below is for internal use only for planning purposes and will not be disclosed to providers or other partners without your prior approval.

☐ Fixed budget

$

☐ Indicative budget only

Indicative $

☐ None for this year but would like to be kept informed on projects in my area.

☐ Other (please specify)

3. Pre-Approval

Based upon the indicated budget if the cost share (after the quotes are returned) is under the amount specified, can it be used as your **confirmation of your acceptance** of becoming a partner?

By removing the need for later confirmation, CIP can reduce the number of delays between Expression of Interest and project commencement. Regardless of your selection here, CIP will still endeavour to reduce partner share at all opportunities.

☐ Yes ☐ No

4. Additional Partners

Have you contacted other possible partners who may be interested? If so who?

Additional purchase partners reduce the cost via sharing. Whilst CIP will coordinate the process, being aware of any other interested parties up front can expedite the process.

Final Remarks

The section below offers the potential partner a chance to add any additional notes.

1. Special Requirements or Considerations

Are there any other special requirements or considerations that were not covered above?

e.g.: Time of day; consideration of environmental factors such as flood, drought or bushfire; delivery date required to meet project deadlines; etc.

2. Additional Products

Are there any other required products that were not covered above?

e.g.: Additional derived products such as building footprints, volumetric assessment, vegetation extent or NDVI; full waveforms; etc.

3. Submission

Once finished, please press the Submit Form button to email it. You may use Adobe Fill & Sign if you wish to lock the document. Alternately, you may submit printed applications as follows:

Return to: coordinated.imagery@delwp.vic.gov.au

or Coordinated Imagery Program
Land Information & Spatial Services,
Dept. of Environment, Land, Water & Planning
PO Box 500,
East Melbourne Vic 3002

Inquiries: (03) 9194 0204

Coordinated Imagery Program Expression of Interest Form - Version 2.0.2

Authorised and published by the Victorian Government, Department of Environment, Land, Water and Planning, 2 Lonsdale St, Melbourne, June 2018.

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