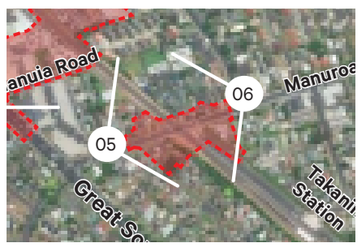
Viewpoint 05. NoR 1 Manuroa Road (A):

NoR 1 Manuroa Road (A): Looking northeast toward the existing level crossing from outside 6 Manuroa Road, Takanini.



Original Photo MJ | 50mm | DSLR Canon D810 | 12:00hrs 03 October 2023 | 1770396E 5898984N NZTM | Elevation approximately 15m
Reading distance for correct scale: 400mm
Field of View Approximately 110˚ horizontal (across 2 x A3 pages) & 34˚ vertical

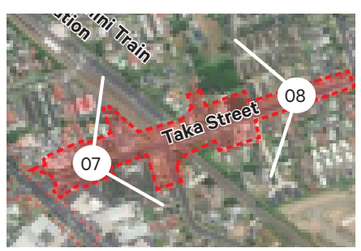
Viewpoint 06. NoR 1 Manuroa Road (B):

NoR 1 Manuroa Road (B): Looking southwest toward the existing level crossing from the intersection of Manuroa Road and Oakleigh Avenue, Takanini.

Original Photo MJ | 50mm | DSLR Canon D810 | 11:11hrs 03 October 2023 | 1770617E 5899053N NZTM | Elevation approximately 15m
Reading distance for correct scale: 400mm
Field of View Approximately 110˚ horizontal (across 2 x A3 pages) & 34˚ vertical

Viewpoint 07. NoR 1 Taka Street (A):

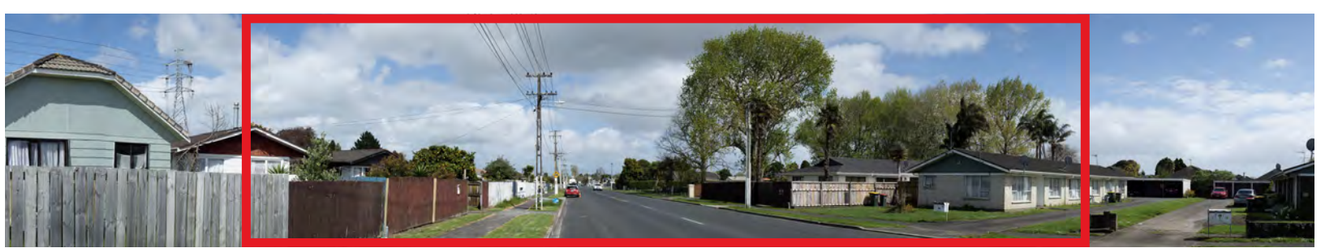
NoR 1 Taka Street (A): Looking southwest toward the existing level crossing and the Takaanini Reserve from outside 49a Taka Street, Takanini.

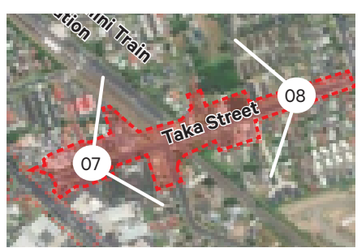


Original Photo MJ | 50mm | DSLR Canon D810 | 11:48hrs 03 October 2023 | 1770779E 5898657N NZTM | Elevation approximately 15m
Reading distance for correct scale: 400mm
Field of View Approximately 110˚ horizontal (across 2 x A3 pages) & 34˚ vertical

Viewpoint 08. NoR 1 Taka Street (B):

NoR 1 Taka Street (B): Looking northeast toward the existing level crossing from outside 19 Taka Street, Takanini.

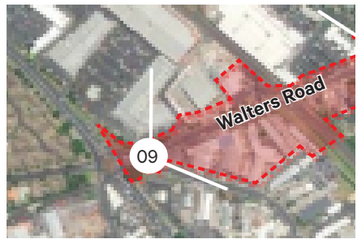




Original Photo MJ | 50mm | DSLR Canon D810 | 11:17hrs 03 October 2023 | 1771068E 5898734N NZTM | Elevation approximately 15m
Reading distance for correct scale: 400mm
Field of View Approximately 110˚ horizontal (across 2 x A3 pages) & 34˚ vertical

Viewpoint 09. NoR 2 Walters Road (A):

NoR 2 Walters Road (A): Looking northeast toward the existing level crossing from outside 1 Walters Road, Takanini.



Original Photo MJ | 50mm | DSLR Canon D810 | 11:38hrs 03 October 2023 | 1771587E 5897834N NZTM | Elevation approximately 15m
Reading distance for correct scale: 400mm
Field of View Approximately 110˚ horizontal (across 2 x A3 pages) & 34˚ vertical

takanini town centre
thewarehouse
cityfitness
Blacksmith
RECHARGE HE
Spark
ASB
HARVEYS
Braeburn Pl
Nando's
STONZ
Bin Inn
Caltex
NCR914
50m
20
TEGA

Viewpoint 10. NoR 2 Walters Road (B):

NoR 2 Walters Road (B): Looking southwest toward the existing level crossing past the Takanini Town Centre from the intersection of Arion Road, outside 33 Walters Road, Takanini.

Original Photo MJ | 50mm | DSLR Canon D810 | 11:26hrs 03 October 2023 | 1771941E 5897965N NZTM | Elevation approximately 19m
Reading distance for correct scale: 400mm
Field of View Approximately 110˚ horizontal (across 2 x A3 pages) & 34˚ vertical

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Panoramic Photography Methodology Statement

- Photos were taken with a fixed lens on DSLR camera. Locations were fixed using a handheld GPS unit with accuracy of 5m. Reference points in the landscape were also located to assist referencing of photo.
- A sequence of photos was taken from each viewpoint and stitched to form panoramas. Photos were overlapped by approximately 30% and edges cropped prior to stitching to eliminate edge distortion.
- The completed panoramic photography is presented over two pages:
    - The photos are produced to replicate correct scale at the nominated reading distance (in this case 400mm).
    - Each panoramic photo is printed across two facing pages to illustrate a field of view of approximately 110° at a reading distance of 400mm. This approximates the field of human binocular vision. (but not peripheral vision which extends to approximately 200°)

Notes on use of Panoramic Photography:

- They are a useful tool but they cannot not precisely reproduce real life for the following reasons:
    - 2D Photography flattens an image compared to binocular vision.
    - Photography is static, whereas the human vision can scan and remember information.
    - Photographs are passive, whereas the eye seeks out detail.
    - The human eye can see more contrast than can be reproduced through photography.
    - Physical resolution of photography and printing is less than that of the human eye.

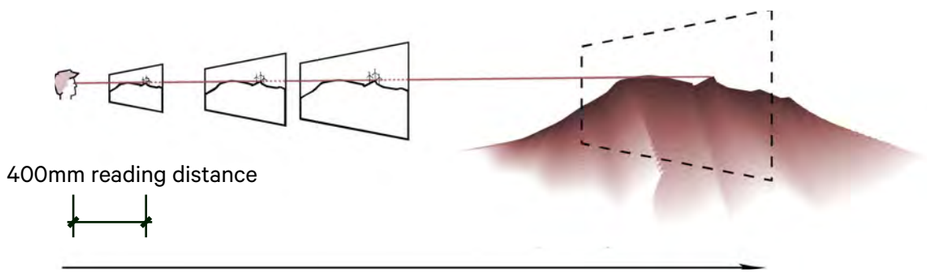

Figure 01: The relationship between reading distance and real life scale.

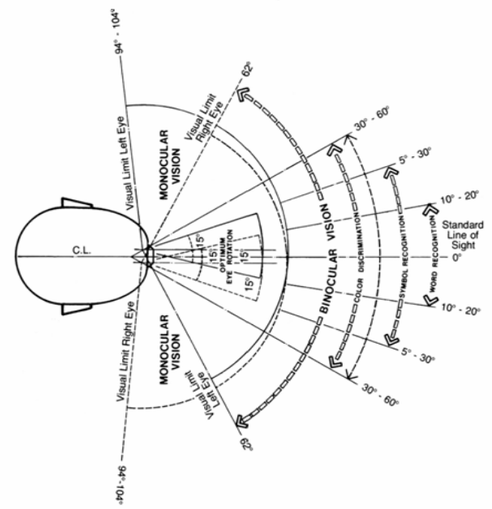

Figure 02: Binocular vision is approximately 124°. Field of view is approximately 110° across 2 x A3 pages at correct scale image for 400mm reading distance (vertical field of view is approximately 33°)

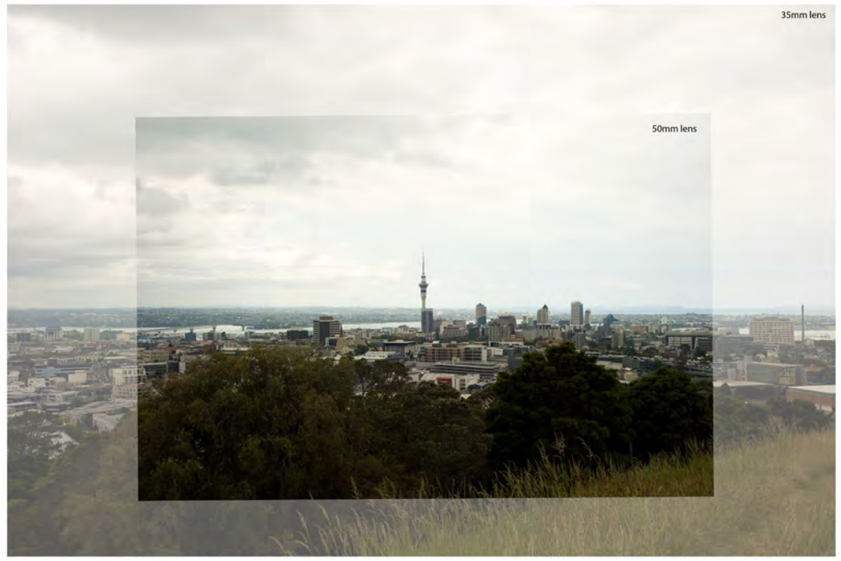

Figure 03: Comparison of 35mm lens and 50mm lens

Two images from the same location. With 35mm and 50mm lenses perspective is influenced by field of view, not by lens focal length. The overlaid portion is identical.

Methodology.