

## **Appendix 13.1**

### **Visually Verified Montages by iCreate Methodology Report**

## 1.0 Methodology & Report

- 1.0.0.1 Visually Verified Montages (VVMs) have been produced in compliance with best practice as outlined in the Guidelines for Landscape and Visual Impact Assessment: Third Edition, published by the Landscape Institute.
- 1.0.0.2 In taking the base photographs, we have adhered to the following points as far as possible:
1. Photographs are taken in weather conditions of clear visibility;
  2. The same exposure is used for all the frames i.e. manual exposure is used;
  3. A 50mm lens is used in a 35 mm format;
  4. A 50% overlap is taken between photos to allow stitching the photos together while minimising distortion;
  5. To ensure all photos align, all shots are taken from the same location by turning the tripod;
  6. When taking the photo the precise location is recorded using a hand held GPS;
  7. Altitude (ground level), date, time, and weather conditions are recorded for each viewpoint;
  8. The height from ground to centre of camera lens is fixed at 1.6m to match the average height of a person;
  9. Reference points within each viewpoint are recorded with GPS locations.
- 1.0.0.3 In producing the computer models, the following methodology has been used:
- A. Base mapping and height data of the relevant area are set up to real-world OS co-ordinates;
  - B. The proposed development is located according to the scheme design and XY coordinates supplied;
  - C. The arrangement and size of the development is modelled in accordance with the application;
  - D. Viewpoint locations are inputted using GPS data collected on-site;
  - E. The direction and viewing angle of each photographic frame within the panoramic views is then aligned using GPS data and reference points;
  - F. The development model is rendered for each photographic frame at each viewpoint and merged with the full resolution (5616x3744 pixels) base photographs using Adobe Photoshop;
  - G. The lighting and exposure of the 3D models is corrected to match the photographic conditions;
  - H. Once the 3D model has been merged with each individual frame, the frames are then stitched to form the panoramic photomontage.
  - I. Panoramas are produced by stitching individual photographs with recognised software (e.g., Adobe Photoshop), not manually or by the use of specialist cameras, in order to minimise distortion;

1.0.0.4 Additional Notes:

1. The tidal range when all photographs were taken was between 1.9m and 9.2m CD, compared with MHWS of 1.0m and MLWS of 9.5m.
2. The tide height at the date and time each photograph was taken was recorded using relevant tide tables for the closest Port for each viewpoint (Swansea, Mumbles, Port Talbot and Porthcawl);
3. Where requested for specific viewpoints, we have taken photographs at both high and low water. Otherwise, as far as was logistically practicable, we have taken photographs at *either* high *or* low water.
4. Buildings are generally shown as blocks representing maximum building envelopes to allow for variations in the proposed architectural designs.
5. In order to compare the impact of the proposed development, two versions of each viewpoint have been supplied: Before and After.
6. A survey-grade TopCon GRS-1 GPS device was used to accurately determine the co-ordinates of the viewpoint locations, which were then marked with labels/pins.
7. A fixed 50mm lens and a Canon EOD 5D Mark II SLR digital camera was used to take the photographs.