

CGI's & Photomontages

Castlemartyr

Co. Cork



CGI_1_OpenSpaceA



CGI_1_OpenSpaceB



CGI_1_OpenSpaceC



CGI_1_OpenSpaceD



CGI_5_Creche





Name	CGI Locations	Marshall Yards Development Company	
Status			
Scale	Not to Scale		
Castlemartyr, Co. Cork		Rev: 2	



Name CGI_1_OpenSpaceA		Marshall Yards Development Company			
Castlemartyr, Co. Cork					




Name CGI_1_OpenSpaceB		Marshall Yards Development Company		
Castlemartyr, Co. Cork	Rev: 2			



Name CGI_1_OpenSpaceC		Marshall Yards Development Company		
Castlemartyr, Co. Cork	Rev: 2			



Name CGI_1_OpenSpaceD		Marshall Yards Development Company		
Castlemartyr, Co. Cork				



Name CGI_5_Creche		Marshall Yards Development Company		
Castlemartyr, Co. Cork	Rev: 2			

PM02 Killeagh Road looking SSW


- Existing
- Proposed






Name	Camera Locations	Marshall Yards Development Company	
Status	Photomontage View Locations		
Scale	Not to Scale		
Castlemartyr, Co. Cork	Rev: 2		



Name PM02 Status Existing Reference: Killeagh Road looking SSW		Marshall Yards Development Company	Camera location 596814,573549,15.5	Camera Canon 6D Lens 24mm Stock HView Angle Nominal 74 degrees Date/Time: 30/06/2024 18:54	
Castlemartyr, Co. Cork			Target Direction 596799,573501,15.1	Recommended viewing distance with both eyes is 240mm	
Rev: 2					



Name PM02 Status Proposed Reference: Killeagh Road looking SSW		Marshall Yards Development Company	Camera location 596814,573549,15.5	Camera Canon 6D Lens 24mm Stock HView Angle Nominal 74 degrees Date/Time: 30/06/2024 18:54	
Castlemartyr, Co. Cork			Target Direction 596799,573501,15.1	Recommended viewing distance with both eyes is 240mm	
		Rev: 2			

Photomontage Methodology / Method Statement

Work has been completed in accordance with best practice guidelines a summary of which are provided below.

Preparation

Prior to site visit camera locations were identified and located on digital map to enable GPS routing to the correct locations. The site was “scouted” for access using Google Streetview (c) Google.

Photography

- Photographs were taken on site at locations specified using a high-resolution professional digital camera. The Camera, a Canon 6D, is a full frame format (which corresponds to a traditional 35mm film format) as recommended by best practice guidelines.
- Images were taken in RAW format which provides the maximum flexibility in adjustment along with the best quality available, and with bracketed exposure. The images were stored with embedded camera/photo exif data.
- The camera was tripod mounted, spirit leveled and set at a nominal 1.6m above ground level
- A Canon EF 50mm Stock Lens is used for all distant views and a 24mm Tilt Shift lens for closeup views. In this case all views were closeup and a 24mm tilt shift was used.

Control

A series of survey points were captured on site for each photograph using CHCNAV i89 Visual IMU GNSS survey grade GPS receiver with a 1408-channels, and enhanced RTK. This is a hybrid survey system with dual camera visual survey capabilities.” The following were measured:

- The camera position, plan and height
- Measured points of detail visible when the photograph was taken. On streetscape scenes points of detail (corners of buildings, poles, sign, white lines, structures, etc) are surveyed to provide an accurate orientation base where insufficient existing detail is available we supplement with either with red/white ranging rods or smaller orange cones placed in the camera’s field of view while taking the photograph.
- Regardless of the type of control the configuration shall be non-collinear with a good photogrammetric geometry. This ensures that computational analysis is convergent.

Setting up Photomontage Images

- Survey and OS mapping is imported into 3D software
- A calibrated virtual matching camera was created to match the physical one used to capture the image. The camera was snapped to the surveyed real-life camera locations. The individual photograph frames were loaded into the viewport background.
- Using in-built software algorithms the virtual camera was adjusted so the points of detail on the photograph and the surveyed points in real-life coalesce in the camera viewport. Once complete the virtual camera was be orientated so that it is identical to the physical camera that took the base photograph.
- Checks were made using the surveyed information and project mapping and cross referenced with the photographs to ensure they align.
- A Daylight system was then accurately introduced into the scene at it correct geo-referenced coordinates. Once the time/date and time zone is set the digital sky will match the position of the sun and shadows created by the same in the base photograph.

Verifiable Photomontage & Proposed development modelling

- The proposed buildings were supplied as 3d CAD files by the design team.
- The building was located in accordance with surveyed location and at the correct FFL.
- True life digital materials were designed and assigned to the 3D model elements using reference imagery provided by the client. Sophisticated real world rendering shaders were used in conjunction with the daylight system to produce final renders which will react in a verifiable manner to match the reference photographic base images.
- Finally, the new development image and the existing original photograph were merged with due care for any demolitions/removals, foreground / background existing objects, landscaping, lighting, shadows, etc. to produce a single believable and verifiable composite image.

Viewing instructions

These images are designed to be printed at A3 and taken to site to evaluate the impact of the development.

Images should be viewed with both eyes open from the locations indicated and held at the indicated distance from the viewers eyes depending on the lens used. When held at arms length the viewer should be able to effectively focus not only on the photomontage in hand but also on the surrounding landscape which will give them a much wider field of view.

When used in this fashion the existing landscape will line-up and the photomontage will provide similar perspective and thus enable the viewer to visually evaluate the proposal.