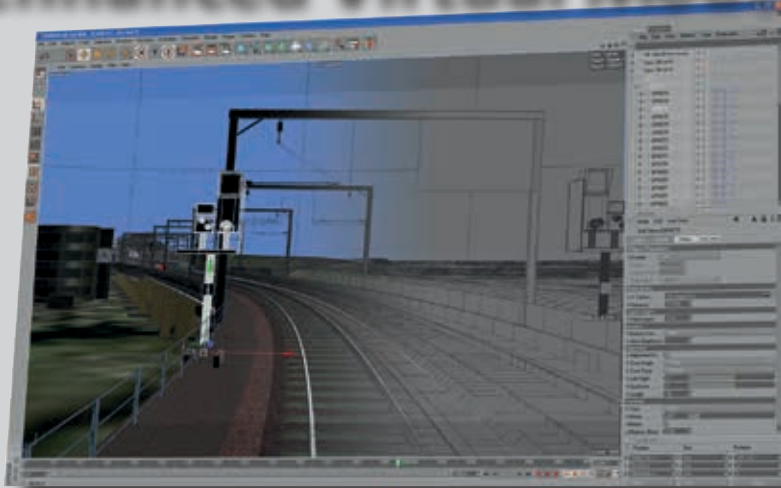


## 3D Planning & Signal Sighting from the comfort of your office

# Full 3D Signal Sighting & Enhanced Virtual Models



- **3D based Desktop Signal Sighting**
- **View from any 3D location & preset drivers positions.**
- **Collates data from many disciplines - PWAY, OLE, Signalling, Civils etc.**
- **Models are fully editable in real-time**
- **Two stage approach**  
Bare Bones model for Grip 3-4  
Detailed model for Grip 5 and beyond.
- **Enhanced 3D for public presentation, consultations or inquiries.**
- **Rendered videos can be developed into a Driver briefing package**

Through our developed processes we can provide projects with VR models for early assessment based on Ordnance Survey and Aerial data through to detailed models for Grip 4 & 5 design analysis, training and IDC.

If a 3D model has been built for signal sighting it can easily be enhanced to suit the needs of any presentation.

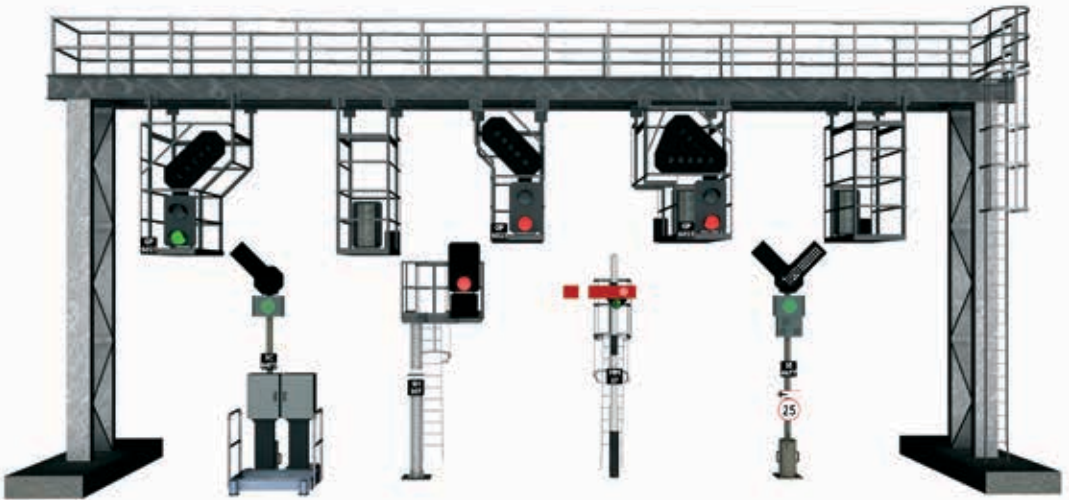
All our 3D Models are transferable between standard 3D software applications and can be handed over for inclusion in Training Simulators.

## Some of the Signal Sighting tools available in the G-VST

- Signal & Signage Position relative to chainage line, offset, height
- Reconfigure signal design & ID's
- Set & display signal beam alignment
- Preset drivers eye views along routes (including BiDi views)
- Offset viewing camera to adjacent lines
- Lines of sight measurement
- Distance to selected signal for sighting assessment.

## Typical data required

- Ordnance Survey tiles & Aerial Imagery (from the Network Rail Portal)
- Aerial survey or Height data
- Topographical Survey
- Chainage line based on PWAY and/or Signalling design
- PWAY, OLE, Civils design
- Signalling schemeplan
- Signal Sighting Forms
- Ground based photos of stations & bridges etc.



## We offer the following staged or standalone workflows

- **Feasibility Models** Ideal for planning, presentations & public enquires
- **Bare Bones Grip 4** Signal Sighting, Design co-ordination & IDC
- **Detailed Grip 5** IDC, Stage works & Constructability
- **Driver Briefing Packages** for Training & presentations.
- **Enhanced 3D** for public consolation and presentations
- **Conversion** to Training Simulators.

## **Constructability, Stage Works & 4D Modelling**

Our 3D models are ideal for many other aspects of the design & construction process. Programmed works, possessions and sequences can easily be represented in 3D prior to the event. These can be used for 4D analysis, workforce training & awareness and general presentation purposes.

These spatial models are full 3D and based on site grid co-ordinates. Finite detail can be added for constructability checks and installation plant added for spatial awareness. Utilities and services often conflict, especially if underground, and through 3D modelling many of these clashes can be designed out.

If required, the project programme can be linked directly to the model or it can be standalone for a particular stage or phase.

Temporary works and layouts can viewed and assessed and even output as video for driver briefing.

The production of these models is a cost efficient add-on if models have been built for Signal Sighting and can aid the construction planning process.

## **Enhanced 3D Models**

Our enhanced 3D is superb for communicating to the public and interested parties the visual impact and design benefits of a project. It can be used for video, TV, billboard, printed promotion material and online visuals. We have a track record of producing imagery for public consultations and presentations and large-scale prints.

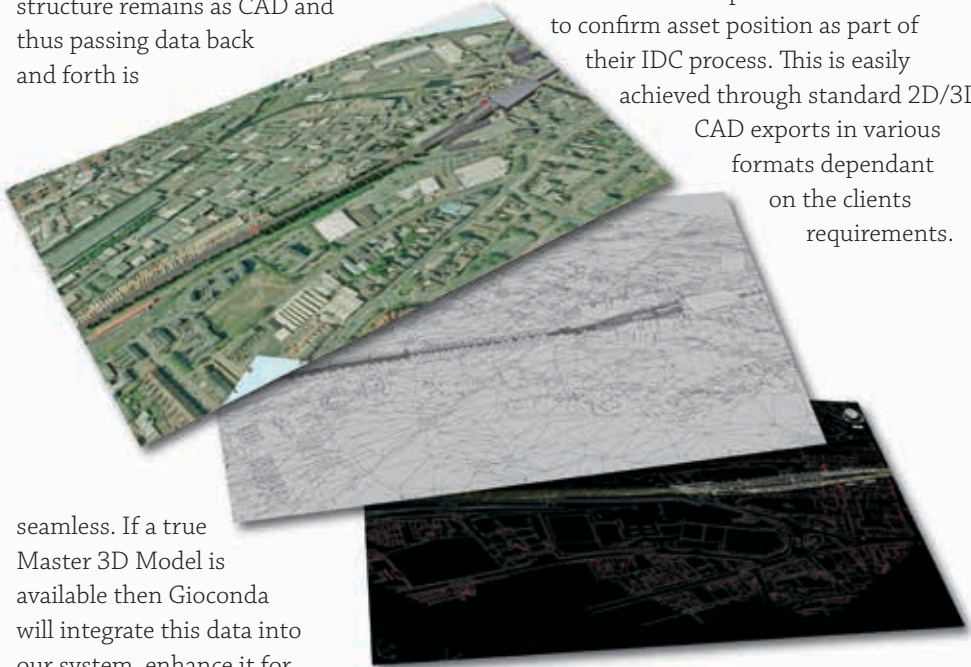
For optimum realism our Enhanced 3D can be superimposed onto hi-res photos and videos to give as much detail as possible.



## Project Model Integration

The data required for our 3D models can be provided from existing project models or master models and through standard CAD packages like MicroStation or AutoCAD.

The underlying Gioconda 3D model structure remains as CAD and thus passing data back and forth is



seamless. If a true Master 3D Model is available then Gioconda will integrate this data into our system, enhance it for our purposes and then return updated layers to the master model as necessary.



Where project co-ordination is required, Gioconda will adopt systems like Projectwise to collaborate with the design process and other disciplines. This ensures an up-to-date model.

In many cases the design team requires a CAD 'backcloth' output from our models to confirm asset position as part of their IDC process. This is easily achieved through standard 2D/3D CAD exports in various formats dependant on the clients requirements.

## Signal Sighting Form Creation

*See the G-RASTx Process leaflet for full details*

Integrated SSF tools are found in our G-RASTx system and the standalone G-SSF Editor is ideal for working alongside the Virtual Sighting Tools. When used with the provision of SSC Chair or engineer support from Gioconda this remains a truly complete service.