

Elgin roadworks.org Pro Map Service Specification

February 2017 Version

1 Overview

- 1.1 This document provides a non-technical summary of the functional components of the Elgin roadworks.org Pro Map service.
- 1.2 The roadworks.org Pro Map is a web mapping service based on Google Maps JavaScript API which is designed to be embedded into third party systems for operational and business use. It enables system developers to embed the roadworks.org map into their applications with all of the features and data of the public roadworks.org Map plus additional functionality and data for business users.

2 Embed API

- 2.1 The roadworks.org Pro Map Embed API enables the map to be embedded within an HTML web page. The Embed API supports a number of functions enabling the map to default to a given zoom scale and centre point and activation of given data layers, among others.
- 2.2 Technical documentation can be found here: <https://support.roadworks.org/v7-embedding-guide/>
- 2.3 A embedded map code generator can be found here: <https://roadworks.org/embed/>
- 2.4 An even simpler integration can be accomplished by invoking the roadworks.org Pro Map in its own browser window by passing parameters on the URL. Integrations using this approach will be bespoke to the particular application.

3 Security

- 3.1 The roadworks.org Pro Map can only be accessed using a valid API Key issued by Elgin. All accesses are logged. The username used to access the parent application into which the map is embedded and the client IP address are recorded in the access logs.

4 Core Data Layers

- 4.1 The roadworks.org Pro Map incorporates the following core data layers.
- 4.2 Base Map data layers

Base Map Data Layers	Streetworks planning intelligence	Coverage (see Annex A)
Google Maps Map View	Site location	
Google Maps Satellite view	Local road network & junctions	
Google Maps Terrain view		
OpenStreetMap		
Google Maps Street View	Parked cars Street lamps Street furniture, trees, etc Overhead cables Traffic calming	

4.3 Coordination & Scheduling data layers

Coordination & Scheduling Data Layers	Streetworks planning intelligence	Coverage (see Annex A)
Roadworks (current and planned)	Conflict avoidance Identification of permit sharing and other coordination opportunities	
Traffic Restrictions (current and planned road closures, diversions, and other traffic management interventions)		
Public events (current and planned)		
Winter gritting routes	Primary & secondary gritting routes	

4.4 Real-time data layers:

Data Layer	Planning intelligence	Coverage (see Annex A)
Google live traffic	Real-time works management	
Live traffic incidents	Real-time traffic monitoring	
Traffic information signs (VMS)	Supply chain logistics and routing	
Traffic cameras		
Car park availability		

4.5 Streetworks compliance data layers:

Data Layer	Planning intelligence	Coverage (see Annex A)
National Street Gazetteer	Full ASD including: Traffic Sensitive Special Engineering Difficulties Environmentally Sensitive Road Status	
Section 58 and 58A restrictions (current and planned)	Restrictions on scheduled works	

4.6 Other data layers:

Data Layer	Planning intelligence	Coverage (see Annex A)
Bus stops	Proximity to bus stops & affected services	
Train/tram stations	Proximity to train/tram stations	
Highway Authority boundaries	Highway Authority boundaries	
District Authority boundaries	District Authority boundaries	

5 Additional Data Layers

- 5.1 In addition to the core data layers identified in the section above the roadworks.org Pro Map can be extended to incorporate additional data layers subject to specific commercial and licensing terms.
- 5.2 Additional data layers include Ordnance Survey MasterMap, Speed Limits, Height / Weight / Width / Turn Restrictions, Bridges & Structures, Points of Interest such as Schools, and various environmental datasets.

6 Map Controls

- 6.1 The roadworks.org Pro Map incorporates the following map controls:

Map Control	Example Use Case
Layer Control	User can activate and overlay multiple data layers
Date Control	User can activate planned works within a user defined date span
Search Control	User can search for a map location using standard geographic search (address, postcode, etc.) as well as OS grid reference, USRN and EToN Works Ref.
Journey planner Control	User can plot a route from a start point to a destination. This feature is powered by the Google Maps Routing API.
Copy Coordinates Tool	User can define a point location on the map and copy OSGB coordinates to the clipboard for pasting into another application or document
Measuring Tool	User can redline points, lines and polygons on the map and record and copy distance and area measurements

7 System Requirements

- 7.1 roadworks.org Pro Map has been developed with strict adherence to HTML5 standards and best practice. It supports all modern standards-compliant web browsers on PC and Mac and the majority of browsers on all mainstream mobile devices. The map has been designed to load quickly and work well on mobile devices. In particular, we have focused on development for advanced mobile devices such as Android and iOS handsets.

8 Further Information

Further information and technical specifications for functional components of the roadwork.org Pro Map can be provided on request.

Please contact us at info@elgin.org.uk

Annex A: Coverage of Data Layers

Coverage Key	
	GB wide
	GB wide subject to provision of data by HAs. roadworks.org boasts the most complete coverage of HA streetworks and related information but there remain some gaps in coverage. For more detail on individual data layers refer to the data coverage matrix . In the case of third party works coverage extends to 170 of 175 HAs across England & Wales.