



An Roinn Iompair
Turasóireachta agus Spóirt
Department of Transport,
Tourism and Sport

ROADS Services Training Group

LOCAL AUTHORITY ROADS CONFERENCE and EXHIBITION - 2019

Lyrath Estate Hotel, Kilkenny, May 2019.

LOCAL AUTHORITY ROADS CONFERENCE and EXHIBITION – 2019

Bridge Asset Management Project

Brian Cross

Senior Executive Engineer
DTTAS Support Office

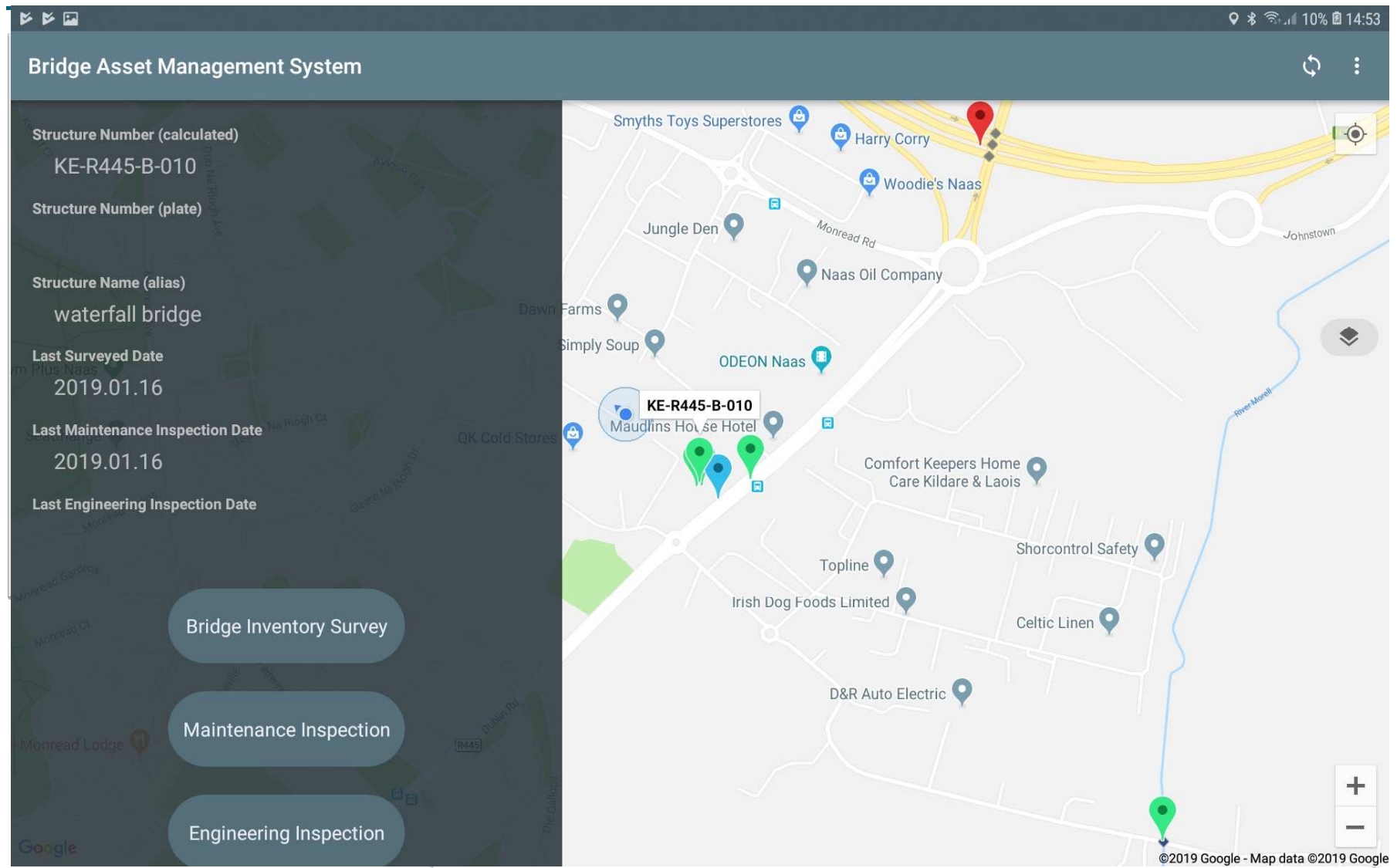


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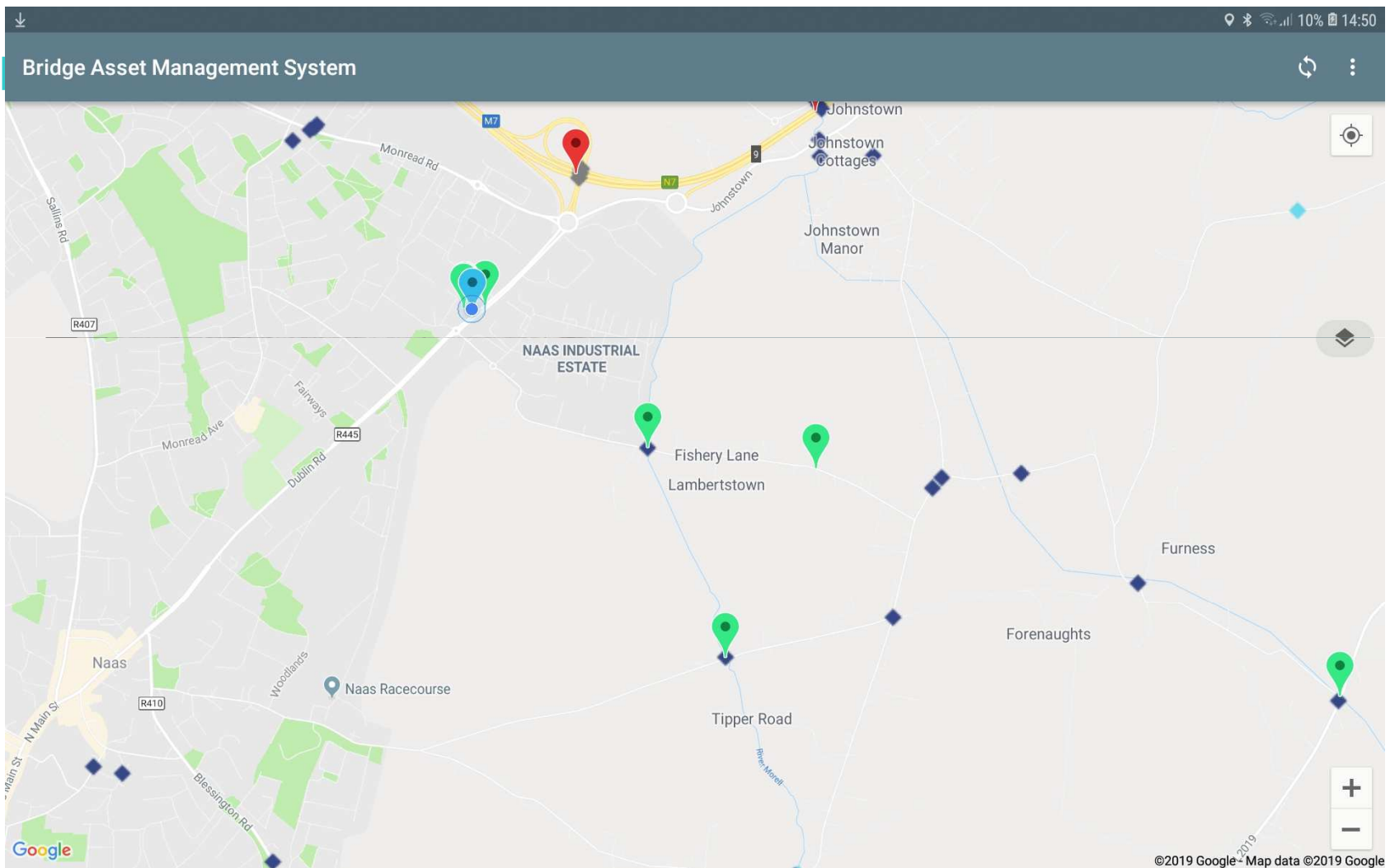
Maproad PMS Bridge Module

- ❑ Basic Survey & Condition Ratings for Bridges
- ❑ Clipboard App, Data goes straight into Maproad PMS
- ❑ Easy to Use app & Easy to use information mapped in Roadmap PMS

The App



Maproad PMS Bridge App



Quick Rating,, Red Amber Green

The screenshot shows a mobile application interface for 'Maintenance Inspection'. The top navigation bar includes a back arrow, the title 'Maintenance Inspection', and three action buttons: 'SAVE AS DRAFT', 'SAVE AND UPLOAD', and 'DISCARD'. The status bar at the top right shows location, signal, Wi-Fi, 53% battery, and 12:52.

The form is divided into two main columns. The left column contains input fields for:

- Structure Number (calculated):** KE-R445-B-000
- Structure Number (plate):** 172KK123
- Structure Name (alias):** NRO BRIDGE
- Location Description:** KNRO
- Inspector Name:** Brian.Cross

The right column is titled '* Element Maintenance Rating' and lists several components, each with a circular rating indicator and a 'Change Rating' button:

- Parapets:** Rating indicator is a solid grey circle.
- Access and Egress:** Rating indicator is a solid grey circle. A hand icon is shown clicking the 'Change Rating' button.
- Vegetation:** Rating indicator is a solid grey circle.
- External walls:** Rating indicator is a solid grey circle.
- Abutments and Piers:** Rating indicator is a solid grey circle.
- Deck or Arch:** Rating indicator is a solid grey circle.

Below the list is an 'Overall Maintenance Rating' section with a large grey rectangular box. At the bottom, there is an 'Additional Comments' text area and a '* Photos (0/5)' section.

Structure Number (calculated)

KE-R445-B-000

* Element Maintenance Rating

Parapets



Change Rating

Structure Number (plate)

172KK123

Access and Egress



Change Rating

Vegetation



Change Rating

Structure Name (alias)

NRO BRIDGE

External walls



Change Rating

Abutments and Piers



Change Rating

Location Description

KNRO

Deck or Arch



Change Rating

Overall Maintenance Rating



Inspector Name

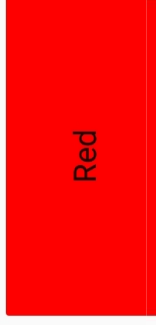
Brian.Cross

Additional Comments

* Photos (0/5)

Structure never had a parapet.

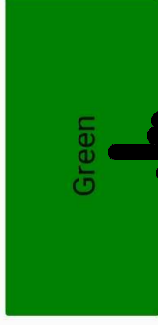
Parapets



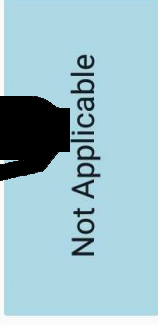
Red



Amber



Green



Not Applicable

Engineering Rating, 1 to 5

← Engineering Inspection
📶 21% 15:27

← Engineering Inspection
SAVE AS DRAFT SAVE AND UPLOAD DISCARD

← Component Condition Rating
📶 21% 15:26

No Erosion or scour evident	1 - Insignificant Damage (VL)	Change Rating
Minor bed or bank erosion, minor scour evident. River bed below structure base. Bed protection showing minor issues	2 - Some Damage, (L) Repair when convenient	Change Rating
Evidence of minor undermining of abutments, piers, cutwaters or training Bed protection showing isolated areas of failure: pitching stones missing, concrete portions missing	3 - Significant Damage, (M) Repair needed very soon	Change Rating
Serious erosion and scour. Bed protection failed over a substantial area. Abutments, piers, cutwater etc. undermined and scour holes at piers visible, foundations exposed Masonry blocks missing and water seeping through the structure between spans	4 - Critical Damage (H) Repair needed immediately	<input type="checkbox"/>
Major erosion and Scour Substantial bed erosion and foundations exposed or partially missing Piers deforming, tilting, suspended, partially missing Abutments only partially founded, structure redistributing load, cantilevering, failure imminent or in progress on parts	5 - Ultimate Damage (U), Bridge closure/lane restriction needed	<input type="checkbox"/>
Additional Comments		

MapRoad PMS Bridge Module

The screenshot displays the MapRoad PMS Bridge Module interface. The browser address bar shows the URL <https://pmskildaredev.compass.ie/pms/>. The interface includes a top toolbar with various tool categories: Standard Tools, Works Tools, Speed Limits, Surface Inventory Tools, Road Schedule, Footways, and Bridges. A left-hand 'Map Layers' panel lists various data layers, including Base Layers (OSI aerial/premium/discovery, OpenStreetMap, Grey Background, Google Hybrid, Blank Map), Road Layers (Road Schedule, Road Junctions, Road Classes, TII Road Network), Boundaries, Network Editing, 3rd Party Datasets, Works, Roads Programmes, Speed, and Bridges. The 'Bridges' layer is expanded, showing sub-layers for Maintenance Inspection (Weight Restriction, Height Restriction, Years Since Maintenance), Prime2 Bridges, and Road Intersections Layers (Road Intersections, Water Intersections, Stream Intersections, Rail Intersections). A legend at the bottom left defines symbols for Prime2 Bridges (Has PMS Record, No PMS Record), Bridges Maintenance Inspection (Unrated, Good, Warning, Alert), Bridge, and Culvert. The main map area shows a network of roads with various colored markers representing bridge data points. A scale bar at the bottom left indicates 1000m and 2000ft. The bottom status bar shows the time period from 01/01/2014 to 31/12/2025 and coordinates (Eastings: 689092, Northing: 719249).

Bridge window

Bridge - KE-L2996-B-000

General Non-Site Data Maintenance Inspections Engineering Inspections History Files

Bridge

Bridge Type*: Arch Principle Function*: Public Road

Number (calc.): KE-L2996-B-000 Number (plate): KE-L2996-001

Name (alias): Abbey Bridge

Road Number: L2996

Is in Skew? Skew Angle: Skew A Is Flood Relief? Number of Openings: Num

Height Restriction: Height Re Is Signage Present? Height Restriction (on signage): Height Res

Weight Restriction? Weight Restriction (on signage): Weight Res

Bridge Over: Canal Bridge Under: Services Evident?

Dimensions

Length*: 19.5 Width*: 5.2 Height: 5

Number of Spans*: 1 Total Span*: 8.6 Max. Span*: 8.6

Materials*

Masonry Concrete Metal Timber

Hazards

Steep Banks Fast Water

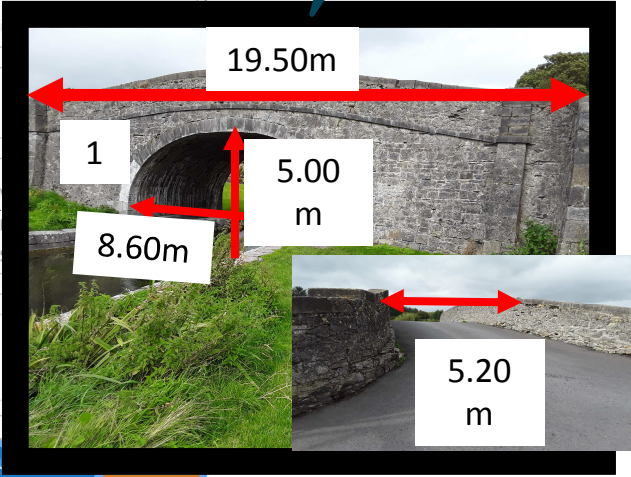
Unstable Bed Vegetation IAPS

Illegal Dumping Livestock Traffic

Location Description

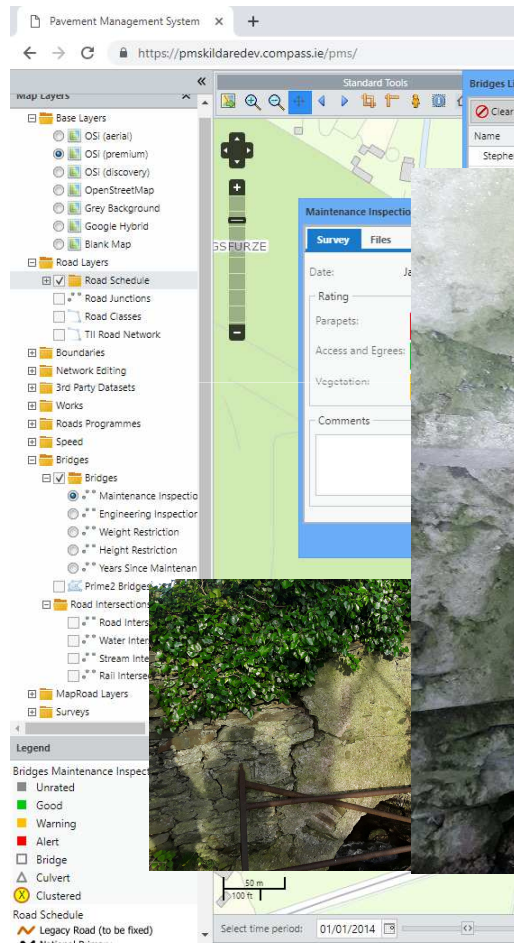
Delete Bridge Export Bridge Zoom to Bridge

Site BIS data



Click on dot

Maintenance Inspection on PMS



KE-L6037-B-000

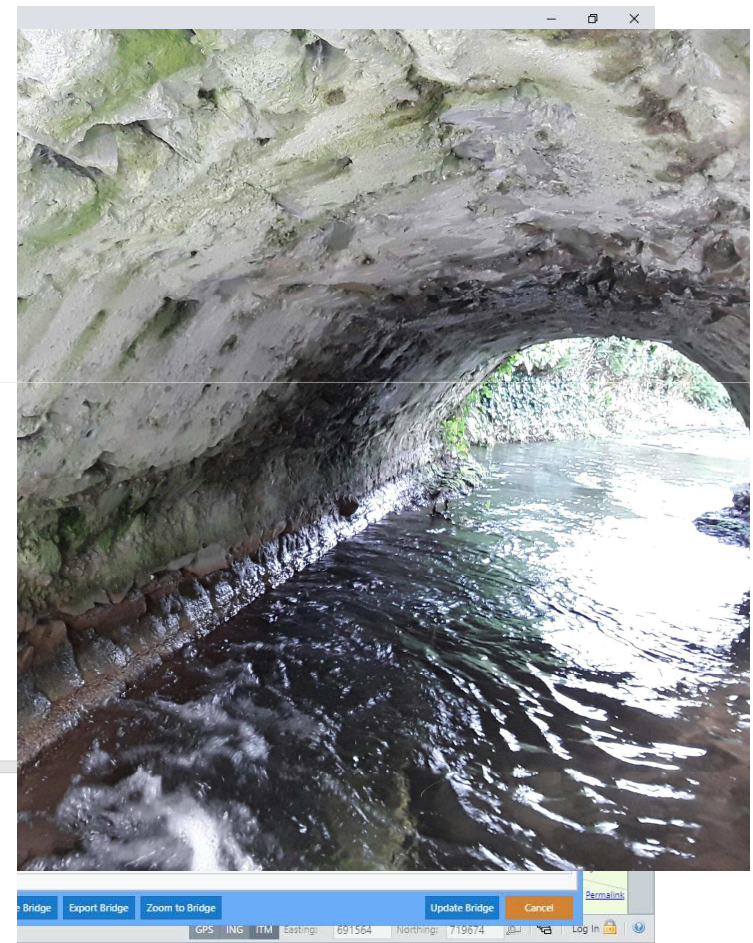
BRIDGE

Generated: 30/04/2019

KE-L6037-B-000

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Bridge Hunting on PMS,, Google Streetview

The screenshot displays the Pavement Management System (PMS) interface. The main map shows a network of roads with a bridge highlighted in pink. A circular inset provides a magnified view of the bridge. A Google Street View window is open, showing a street view of the bridge. The interface includes a map layers panel, a toolbar, and a validation window.

Map Layers Panel:

- Base Layers
 - OSI (aerial)
 - OSI (premium)
 - OSI (discovery)
 - OpenStreetMap
 - Grey Background
 - Google Hybrid
 - Blank Map
- Road Layers
 - Road Schedule
 - Road Junctions
 - Road Classes
 - TII Road Network
- Boundaries
- Network Editing
- 3rd Party Datasets
- Works
 - Type
 - Routine Maintenance
 - Resealing
 - Surface Restoration
 - Structural Overlay
 - Road Reconstruction
 - Other
 - Phase
 - Planned
 - Approved
 - Complete
 - Roads Programmes
 - Speed
 - Bridges
 - Maintenance Inspection
 - Engineering Inspector
 - Weight Restriction
 - Height Restriction
 - Years Since Maintenance
 - Prime2 Bridges
 - Road Intersections Layers
 - Road Intersections
 - Water Intersections
 - Stream Intersections
 - Rail Intersections
 - MapRoad Layers
 - Surveys

Validation Window:

Due After	Date After
10:00	14/11/2018

Street View Window:

1 The Lords Rd
County Kildare
View on Google Maps

Google

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Select time period: 01/01/2019 31/12/2025

GPS ING ITM Eastings: 698114 Northing: 731210 Log in

Stop talking Coffee time

- Easy to use App
- Easy to access bridge data, with other road data to hand
- Informed decisions, Works ROLs etc..
- Happy bridge hunting !