



MAIDWELL – Condition Data

March 2026

Use of GAIST and SCRIM Data within the HEAT

Prioritisation Process

The Holistic Evaluation and Assessment Tool (HEAT) process uses a combination of network condition, safety performance and asset risk indicators to prioritise carriageway maintenance schemes. Within this process, GAIST and SCRIM survey data provide complementary evidence that informs both structural need and skid-related safety risk, ensuring schemes are prioritised on a robust, risk-based basis.

GAIST video condition survey data is used to assess the structural condition of the carriageway. The outputs identify the extent and severity of surface distress, such as cracking, deformation and surface breakdown, allowing sections of the network exhibiting long-term structural deterioration to be clearly identified. This data provides the primary evidence for schemes categorised as long-term and short-term within the HEAT model, supporting the case for resurfacing, reconstruction or surface treatments.

The Sideways-force Coefficient Routine Investigation Machine (SCRIM) survey data is used to assess skid resistance performance, highlighting sections of the network where measured skid resistance is approaching or below investigatory levels. Within the HEAT process, this data contributes to the safety risk element of scheme scoring, ensuring that locations with poor skid resistance, particularly on trafficked routes or at junctions, are appropriately recognised and prioritised where there is an increased risk of loss of control incidents.

When combined, the GAIST and SCRIM datasets allow HEAT to differentiate between:

- Sections with poor structural condition but adequate skid resistance, which are prioritised on asset preservation and whole-life cost grounds.
- Sections where structural deterioration and reduced skid resistance coincide, which attract higher priority due to the combined asset and safety risk.
- Sections with acceptable structural condition but emerging skid resistance concerns, which may be considered for targeted surface treatment rather than full reconstruction.

The side-by-side presentation of GAIST and SCRIM outputs enables a direct visual and data-led comparison between carriageway condition and skid performance along the route. This ensures that HEAT prioritisation is evidence-based, transparent and defensible, and that schemes progressed into the Annual Plan reflect both long-term

asset management need and network safety performance, rather than relying solely on defect frequency or reactive maintenance demand.

The images below present the outputs from the GAIST video-based condition survey alongside the corresponding SCRIM survey results, enabling a direct visual comparison between structural carriageway condition and skid resistance performance along the route.

Carriageway Condition Categories/ Colour

The GAIST carriageway condition is assessed using condition survey data and categorised into five distinct condition categories, reflecting the severity of deterioration and the likely maintenance response required.

- **Category 1 (Dark Green) – No deterioration**
The carriageway is in good condition with no observable deterioration. No maintenance intervention is required, and the asset continues to perform as intended.
- **Category 2 (Light Green)– Minor deterioration**
The carriageway exhibits minor or primarily aesthetic deterioration. The structural integrity remains sound, and only light maintenance may be required to preserve condition and prevent further decline.
- **Category 3 (Yellow) – Moderate deterioration**
The carriageway shows moderate deterioration, with defects that may begin to affect serviceability if left untreated. These sections are typically suitable for localised intervention or mid-life preventative maintenance to arrest further deterioration and extend asset life.
- **Category 4 (Amber) – Moderate to severe deterioration**
The carriageway condition has deteriorated to a level where more significant intervention is required. Defects are more widespread, and rehabilitative maintenance, potentially including full carriageway treatment, is normally required to restore performance.

- **Category 5 (Red) – Severe deterioration**

The carriageway is in poor condition with severe deterioration affecting structural performance. Structural maintenance is required, such as resurfacing or reconstruction, to address asset failure and maintain safety and serviceability.

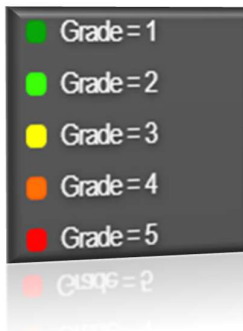


Figure 1: GAIST Category Key

Review of Carriageway Condition Data

Carriageway condition data is provided through GAIST video-based condition surveys, which are undertaken across all road classifications, including A, B, C, and unclassified roads. The surveys capture high-resolution imagery of the carriageway surface, allowing engineers to assess the extent and severity of defects such as cracking, deformation, and surface deterioration.

The survey outputs are processed to produce a condition indicator, with each section of carriageway assigned to one of five condition categories, ranging from no deterioration through to severe structural deterioration. Engineers review this data within Causeway Horizons, where condition trends over time can be assessed and compared across the network.

Engineering judgement is applied alongside the survey outputs to confirm whether deterioration is localised, progressive, or structural in nature, and to determine whether sections are suitable for preventative maintenance, rehabilitative treatments, or full structural intervention. Where necessary, condition data is supplemented by site visits or further investigations to confirm the most appropriate treatment.

SCRIM Colour Coding System

SCRIM results are displayed using a colour-coded system, where green indicates compliant skid resistance, yellow highlights emerging concern, and red identifies sections below the Investigatory Level requiring further review.

- **Green** – Indicates that skid resistance is **above the Investigatory Level (IL)**. These sections are performing satisfactorily with no identified skid resistance concern.
- **Yellow** – Indicates skid resistance is at **the Investigatory Level**. These sections are monitored as part of the SCRIM review process
- **Amber** – Indicates skid resistance is at or below **to the Investigatory Level**. These sections are monitored as part of the SCRIM review process and may warrant further assessment depending on site risk, traffic levels, and collision history.
- **Red** – Indicates skid resistance is below the Investigatory Level. These sections represent a potential skid resistance deficiency and are subject to detailed engineering review, site validation, and consideration for intervention through the HEAT prioritisation process.



Figure 2: SCRIM Category Key

Review of SCRIM Data

SCRIM surveys are undertaken on the A-road network using a specialist vehicle that measures the Sideway Force Coefficient (SFC) under controlled wet conditions. Surveys are carried out during the summer testing season to minimise seasonal variability. The raw SFC data from multiple survey runs is processed to produce a Mean Summer SCRIM Coefficient (MSSC) for each defined road section.

Each section of carriageway is assigned an appropriate Investigatory Level (IL) based on site category, such as bends, junctions, roundabouts, or approaches to crossings. The MSSC is compared against the relevant IL to identify skid resistance deficiencies. Where a deficiency is identified, engineers review additional contextual information, including wet-weather collision history, traffic flow, speed limits, and the length and severity of the deficiency, to understand the level of risk.

Potential SCRIM-led schemes are then validated through site visits, allowing engineers to confirm surface condition, site constraints, and the suitability of potential treatments before any intervention is progressed. The reviewed SCRIM outputs feed into scheme prioritisation and treatment selection, including options such as surface re-texturing, surface treatments, or resurfacing, depending on risk and condition.

GAIST 2020/21



SCRIM 2020/21



GAIST 2021/ 22



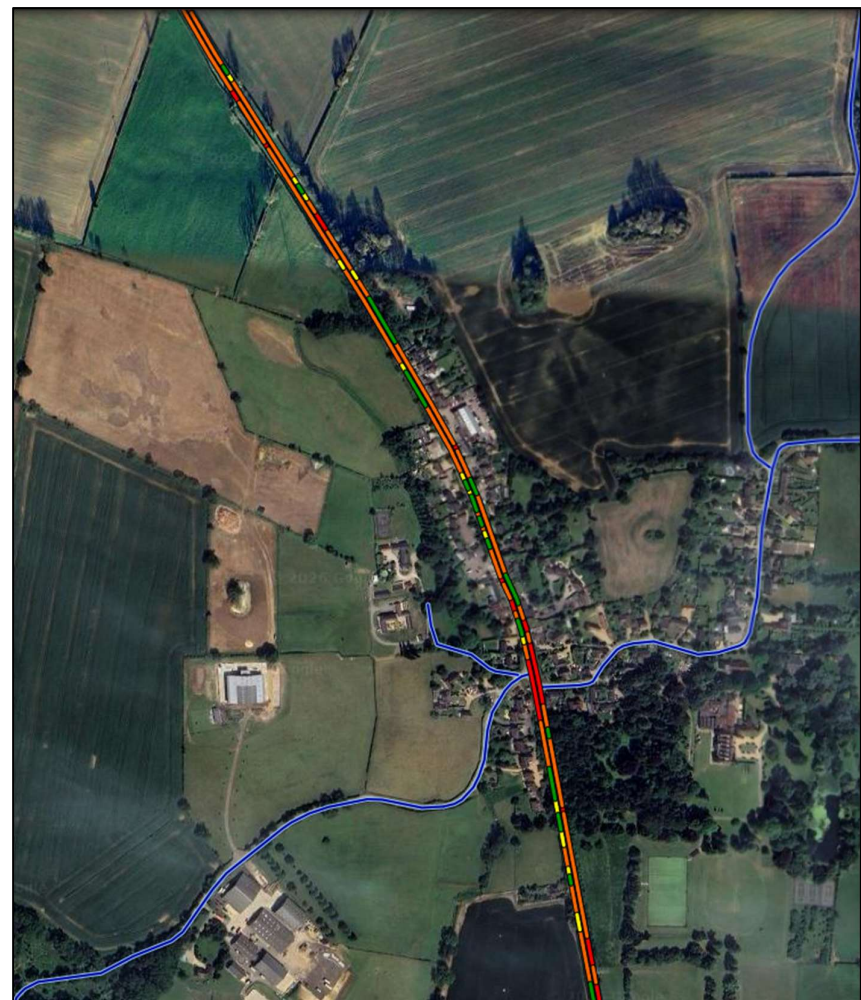
SCRIM 2021/ 22



GAIST 2022/ 23



SCRIM 2022/ 23



GAIST 2023/ 24



SCRIM 2023/ 24



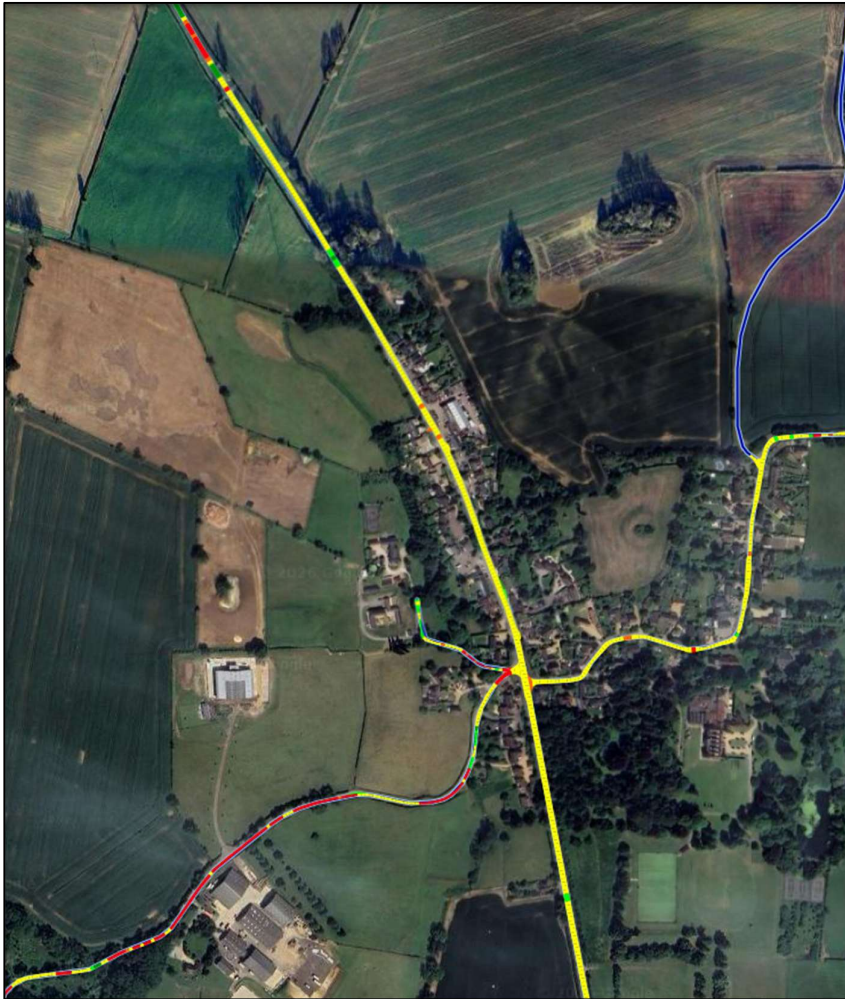
GAIST 2024/25



SCRIM 24/25



GAIST 2025/ 26



SCRIM 2025/ 26



Integration into Scheme Prioritisation

Both SCRIM and GAIST condition data are brought together within Causeway Horizons using the HEAT process, where they contribute to the condition and safety elements of scheme scoring. This ensures that schemes are prioritised based on a balanced assessment of structural condition, skid-related safety risk, and wider network considerations, and that interventions are evidence-led, risk-based, and defensible.

The HEAT Process and Prioritisation Factors

The HEAT (Holistic Evaluation and Assessment Tool) is a decision-support framework used within Causeway Horizons to prioritise carriageway maintenance schemes. HEAT does not identify defects or schemes itself; instead, it ranks potential schemes that have been identified through condition surveys, safety data and engineering assessment, ensuring that limited funding is directed to those schemes that present the greatest overall benefit and risk reduction.

The process brings together condition data, safety performance, and network importance, alongside efficiency and external considerations, to produce a balanced, evidence-led prioritisation score for each scheme. Schemes are then reviewed by engineers before being progressed into the Annual Plan or forward programmes.

Prioritisation Factors

- **Asset Condition**
Condition scoring is informed by GAIST video-based condition survey data, Residual Condition Index (RCI) outputs, and supporting engineering judgement. This reflects the severity and extent of deterioration and helps differentiate between preventative, rehabilitative, and structural maintenance needs.
- **Safety Risk**
Safety considerations include SCRIM skid resistance performance, collision history (particularly wet-weather incidents), and liability risk. Sections with skid resistance below Investigatory Levels or with elevated safety risk score more highly within HEAT.
- **Network Importance**
This factor considers the role and criticality of the route within the wider network, including traffic volumes, road classification, resilience, and access to key destinations such as town centres, emergency services, or strategic corridors.
- **Efficiency and Deliverability**
HEAT accounts for cost effectiveness, including cost per metre, opportunities to

coordinate works with other schemes, and the potential to deliver lifecycle value through timely intervention.

- **External and Contextual Factors**

Additional considerations may include deprivation indices, customer enquiries, insurance claims, and member requests, ensuring that wider social and stakeholder factors are appropriately reflected in scheme prioritisation.

HEAT Review

A review of the current network condition data shows that the three sections within Maidwell did not rank highly enough overall to be included in either the resurfacing or surface treatment programmes at this time. Based on the West Northamptonshire Council’s treatment configuration, the 3 sections through Maidwell did not meet the minimum threshold required for treatment selection. Although the data indicates a consistent presence of Grade 3 deterioration and evidence of fatting, this was insufficient under the current criteria to trigger intervention.

HEAT Prioritisation	Section_Label	Road_Name	Parish	Treatment_Description
Not in Heat priority	CRCDA508 3/11431	HARBOROUGH ROAD	Maidwell	No Treatment selected
Not in Heat priority	CRCDA508 3/11440	HARBOROUGH ROAD	Maidwell	No Treatment selected
Not in Heat priority	CRCDA508 3/11444	HARBOROUGH ROAD	Maidwell	No Treatment selected

Table 1: Extract from the November 2025 HEAT list

Treatment History

SCRIM Investigation Summary – A508 Maidwell

A review of SCRIM (Sideway-force Coefficient Routine Investigation Machine) data for the A508 through Maidwell was undertaken in 2023, to establish whether any section met the criteria for inclusion in a SCRIM-led safety scheme, based on skid resistance performance and collision history. This identified typical SCRIM levels in the range of 0.35 to 0.39, with typical SCRIM deficiencies between 0.01 and 0.05. Within this period, approximately 200 metres of lane length recorded high SCRIM deficiencies (between 0.15 and 0.19), and a further 20 metres recorded very high SCRIM deficiencies (≥ 0.20). However, no wet or dry personal injury collisions were recorded in the three-year period preceding the investigation.

The SCRIM assessment looks at two primary conditions; evidence of collision savings where SCRIM levels are below the Investigatory Level, and/or a SCRIM deficiency of 0.20

or greater over a continuous length of at least 50 metres. Neither of these conditions was met at this location. As a result, no SCRIM-specific safety scheme was recommended following the 2023 investigation.

It is noted that SCRIM deficiencies of 0.15 or greater accounted for approximately 12% of the total length. This level of deficiency is considered likely to have contributed to the inclusion of these sections within the adjacent surface dressing schemes undertaken in 2023.

Following completion of the surface dressing works in August 2023, subsequent SCRIM surveys recorded typical SCRIM values of 0.50 or greater, with no SCRIM deficiencies identified. In addition, no wet or dry road traffic collisions were recorded during these post-treatment periods.

Overall, the SCRIM data demonstrates that the A508 at Maidwell does not currently meet the technical or safety criteria for a SCRIM-led intervention. Skid resistance levels are generally compliant, collision history does not indicate a skid-related safety concern, and more recent surveys confirm an absence of SCRIM deficiencies. Continued routine monitoring through the normal SCRIM survey programme is therefore considered appropriate.

Road Noise Following Surface Dressing

It is normal for road traffic noise to increase immediately after a carriageway has been surface dressed. This is due to the newly applied stone chippings creating a rougher surface texture before they have fully embedded into the binder. As traffic uses the road, the chippings bed into the surface, excess material is removed through routine sweeping, and the surface texture becomes more uniform.

As a result, noise levels typically reduce over the following weeks as the surface settles. The rate at which this occurs depends on factors such as traffic levels, vehicle speeds, and weather conditions. Once the surface has stabilised, road noise generally returns to an acceptable level for the remainder of the treatment's service life.

Defects

The table below summarises the recorded pothole defects addressed over time (2022-2025), analysed by year and priority classification. The table below summarises the recorded pothole defects addressed over time, analysed by year and priority classification, based on the data available.

Year/ Priority	Number
2022	
P2 - 7 Days	1
2023	
P3 - 28 Days	3
P4 - 26 Calendar Weeks	2
2024	
P3 - 28 Days	4
P4 - 26 Calendar Weeks	4
P7 - 12 months	1
2025	
P4 - 26 Calendar Weeks	3
Total	18

Table 2: Potholes; by year and priority

A visual inspection of the carriageway was undertaken on Wednesday 25 March 2026 to assess whether any defects were present that could be contributing to increased road noise. No additional potholes or surface defects were identified, and no observable issues were noted that would reasonably be considered a cause of elevated noise levels at this location.