



National Highways Limited
Pavement Delivery Framework

NEC 4 Framework Contract
(June 2017)

Framework Information
Appendix 05 - Information Systems

CONTENTS AMENDMENT SHEET

Amend. No.	Revision No.	Amendments	Initials	Date
0	0	Tender issue	JW	15/03/2022

Table 1: Information Systems as provided by the *Supplier* to fulfil the requirements of the *Supplier's* own business and effective delivery of the framework contract or any Work Orders.

System	Comment
IT and Information Security Systems	The <i>Supplier</i> implements IT and Information Security systems to protect the confidentiality, integrity, and availability of this information it handles, and have those systems independently audited. The <i>Supplier</i> aligns these systems to meet the <i>Client's</i> requirement for the services provided.
Quality Management System	The <i>Supplier</i> implements a quality management Information System which will ensure consistency and improvement of working practices. The <i>Supplier</i> aligns its quality management Information System to meet the quality requirement used by the <i>Client</i> .
Collaboration System	The <i>Supplier</i> fully utilises tools and software that enhance collaboration between the Community Partners.
Change Control System	This Information System will manage changes to processes and systems.
Human Resource Management System (HRMS)	The <i>Supplier</i> uses a HRMS to manage issues such as recruitment, skill sets, employee history and payroll.
Financial Management System (FMS)	The <i>Supplier</i> uses a FMS to produce timely in-year and year-end management and accounting information.
Project Management System	System to assist in the planning and organisation of activities in order to meet the <i>Supplier's</i> objectives.
Primavera	Primavera (management software) - enterprise project portfolio management software. It includes project management, product management, collaboration and control capabilities, and integrates with other enterprise software such as Oracle and SAP's ERP systems.
	or any revised systems notified by the <i>Client</i> .

Table 2: Current Systems provided by the *Client* to meet the contract management information requirements

Current Information System	Description
National Highways Supply Chain Portal	An internet collaboration site for the <i>Client</i> and its Community Partners.
Customer Relationship Management System (CRM)	The CRM is a Microsoft Dynamics 365 system that manages the CRM strategy to ensure long lasting relationships with the <i>Supplier's</i> customers. It acts as one central and consistent stakeholder / customer database where all interactions with stakeholders and associated tasks are managed on one platform. It is associated to the Confirm system.
HAMIS	The <i>Client's</i> Management Information System. Portal Information System providing access to HAGIS. A single platform for information for all directorates, from simple code look up utilities to more sophisticated forecasting and reporting tools.
HAGIS	The <i>Client's</i> Geographical Information System stores information using the latest digital mapping, which allows users to view geographical data for a specific area of the UK by zooming in and out and using the built in Geographical Information Systems (GIS) tools.
CEMAR – (Contract Event Management Analytics and Reporting)	<p>CEMAR is a cloud based NEC contract management system. It is a collaborative tool that requires the two parties; <i>Client</i> and <i>Supplier</i> to manage contract events through the system as required by good practice NEC contract management. System features include the following</p> <ul style="list-style-type: none"> • contract event management through registers e.g. Early Warnings, Compensation Events, <i>Client</i> instructions and more, • application for payments / invoices, • technical queries and Defect management and • general communications. <p>Multiple in-built reports and charts and graphs proving reports and dashboards across one or multiple contracts to allow effective management of contracts through outputs on communication behaviour, cost, quality, risk and time.</p>
Accident Incident Reporting System (AIRSweb)	<p>The AIRSweb incident reporting Information System, allowing the completion of a single incident report online, which can be submitted to several organisations.</p> <p>Likely to be replaced by HART.</p>
WebDAS	WebDAS provides service providers with an easy to use front end to Departures Approvals System (DAS) for submitting departures and searching past submissions. Database of departures from the <i>Client's</i> requirements and aspects not covered by requirements, including Specification for Highway Works (SHW) specification departures.

HALOGEN	HALOGEN is the central source for Highways Agency Traffic Management Systems (HATMS) logged data. It records setting, state change and fault information for signals, signs and emergency roadside telephones on the <i>Client's</i> motorway network.
Asset Visualisation and Information System (AVIS)	AVIS is a driven survey consisting of video cameras viewing multiple directions, with a simultaneous LiDAR survey. The LiDAR survey provides 3D point cloud data, accurate to 30mm - essentially a 3D model of the network. It provides an inventory of assets along with GIS files.
WebTRIS - Traffic Information System and WEB	<p>WebTRIS <i>Client's</i> Traffic Information System.</p> <p>It provides historic speed and flow data for the past 10 years in 15-minute time slices at count slices across the <i>Client's</i> network. Data is currently taken from Motorway Incident Detection and Automatic Signalling (MIDAS), Traffic Monitoring Units (TMU), Traffic Appraisal, Modelling and Economics (TAME) count sites and also from legacy TRADS (Traffic Flow Database System) sites for older data. This contains hourly count data from inductive loops at approximately 1000 locations across the <i>Client's</i> network.</p>
HAPMS	<p>HAPMS is a set of IT systems that hold the following data sets</p> <ul style="list-style-type: none"> • approved network master data set, • pavement inventory master data set, • pavement construction master data set, • pavement condition master data set, • inventory master data set, • traffic data and • accident data, <p>HAPMS also provides the following business capabilities</p> <ul style="list-style-type: none"> • analysis and reporting of data both in map-based and textual formats <p>integrated tools for the whole life cost optimisation, of proposed pavement maintenance schemes.</p>
Structures Management Information System (SMIS)	<p>SMIS provides operational support to structures management throughout the lifecycle of the structure. This system is being phased out.</p> <p>Note: IAM IS has replaced SMIS. SMIS is currently available as “read only” – access will only be provided if or when required.</p>
Highways Agency Geotechnical Data Management System (HAGDMS)	Internet hosted, and GIS based geotechnical inventory. Holds details of the <i>Client's</i> geotechnical asset, together with geological maps, borehole details, and specialist reports.

Highways Agency Drainage Data Management System (HADDMS)	Shares the facilities developed for HAGDMS and exists on the same platform. This provides integrated geotechnical/drainage information.
Lean Tracker System	A system used to capture and track lean benefits.
Cultural Heritage Database	Part of HAGIS. Database of cultural heritage items.
Highways Agency Environmental Information System (HA) EnvIS	EnvIS consists of specific environmental data supplied by <i>Suppliers</i> , the <i>Client</i> and other bodies which is collated and displayed in a read only format in the Highways Agency Geographical Information System (HAGIS). This data is used to assist in managing the environment, within and surrounding the trunk road network, and in the review and reporting of the environmental performance of both <i>Suppliers</i> and the <i>Client</i> .
Scheme Analysis System (SAS) tools for Drainage, Geos and Structures	Tools for the whole life cost optimisation of maintenance at a Scheme level. The <i>Supplier</i> at its own cost use the SAS tools for drainage, geotechnical and structures assets as directed by the <i>Client</i> in support of specific proposals for individual Schemes.
Planned Engineering Works (PEW) System	System for the notification of planned engineering works that impact on the operational availability or functionality of HA Traffic Management Systems (HATMS) or require access to Regional Control Centre (RCC) Equipment/Control Rooms.
Noise Assessment and Insulation System (NAIS)	GIS based tool for predicting noise impacts on the environment surrounding the trunk road network.
Severe Weather Information System (SWIS)	Provides the <i>Client</i> with information on the state of the network and weather-related incidents.
Network Occupancy Management System (NOMS)	The <i>Client</i> provides a Network Occupancy Management System (NOMS) as part of the Integrated Asset Management Information System (IAMIS) that is fully compliant with the national specification for the Electronic Transfer of Notifications (EToN) and is used to <ul style="list-style-type: none"> • record, update and manage all occupancies on the strategic road network including their delay and impact, • record, update and manage all information as necessary for the fulfilment of obligations relating to

	<ul style="list-style-type: none"> • Traffic Management Act 2004, • New Roads and Street Works Act 1991 and • other legislation associated to the delivery of the TMA 2004 s16 Network Management Duty and associated secondary legislation. <p>NOMS provides direct information feeds to external stakeholders for public use and feeds to the <i>Client's</i> National Traffic Information Service (NTIS) for publication to customers.</p>
<p>Integrated Asset Management Information System (IAM IS)</p>	<p>IAM IS replaces the following <i>Client</i> management systems</p> <ul style="list-style-type: none"> • network occupancy and EToN (SRW) and • structures (SMIS). <p>IAM IS provides functionality for the asset support <i>Supplier</i> to manage customer enquiries, record defects, schedule inspections and record incident data. This information will be available to the <i>Client</i> to better understand the condition of the asset and manage the contract using enhanced reporting capabilities.</p> <p>Information within the <i>Client's</i> current data systems, HAGDMS, HADDMS, HAPMS and SMIS is incorporated in to IAM IS.</p>
<p>PBA Web Portal</p>	<p>Cost Intelligence tool for capturing payments to Tier 2 <i>Suppliers</i> from Project Bank Accounts on live contracts.</p>

Table 3: New Systems to be used by the *Supplier* when made available

New Information System	Description
Financial System	The <i>Client's</i> new finance and accounting Information System which supports major business transaction processing requirements.
Emergency Services Network (ESN)	ESN will provide 'next generation integrated critical voice and broadband data services' and will replace Airwave.
Performance Management Information System (PMIS)	The <i>Client</i> may introduce a Performance Management Information System (PMIS) or other system for recording and reporting against the requirements of this Annex. When/ if provided, the <i>Supplier</i> provides performance data directly into the PMIS.
Finance and Works Management System (PB Confirm)	<p>The <i>Client</i> intends to introduce a Finance and Works Management System which will be used to raise and manage works orders.</p> <p>The <i>Supplier</i> uses the system and provides such information to the <i>Client</i> as required to evidence the service provided and costs incurred performing its obligations under the framework contract or any Work Order.</p>
Highways Accident Reporting Tool (HART)	Highways Accident Reporting Tool (HART) which will shortly be replacing AIRSweb - The new reporting tool is for any work related event that involves a National Highways employee or someone who is employed to work on our Strategic Road Network.
Cloud Portal	An online portal for uploading the total of the Prices for Schemes and cost capture files
Integrated Asset Management Information System (IAM IS)	<p>During the Contract Period it is intended that the IAM IS will replace the following Highways England data management systems:</p> <ul style="list-style-type: none"> • Network Occupancy and EToN (SRW) • Pavement and Approved Network Model (HAPMS) • Structures (SMIS) • Geotechnical (HAGDMS) • Drainage (HADMS) <p>IAM IS will provide functionality for the asset support contractor to manage customer enquiries, record defects, schedule inspections and record incident data. This information will be available to the <i>Client</i> to better understand the condition of the asset and manage the contract using enhanced reporting capabilities.</p> <p>Information within the <i>Client's</i> current data systems, HAGDMS, HADDMS, HAPMS and SMIS will be incorporated in to IAM IS</p>

PRISM	Cost management system.
Xactium	A risk management tool.