

ROADVISION AI

AI-RAMS

AI-Powered Road Asset Management System

Confidential | July 2026

Challenges Faced by Road Agencies

01 Large Road Networks, Limited Inspection Capacity

Managing thousands of kilometres through periodic manual surveys is resource-intensive and difficult to scale.

02 Traditional Survey Methods are Expensive

Specialized survey vehicles and consultant-led inspections are costly and cannot be deployed continuously across the network.

03 Limited Visibility into Current Road Conditions

Road condition and asset information quickly become outdated between survey cycles, making timely decision-making difficult.

04 Reactive Maintenance & Safety Risks

Delayed identification of defects often leads to higher maintenance costs, reduced pavement life and increased safety concerns.

Road agencies worldwide are shifting from periodic, manual inspections to AI-enabled continuous road monitoring providing engineers with objective, network-scale intelligence for faster decisions, better maintenance prioritization and safer roads.

Road Surveys through Vehicle-mounted camera



Drive the route

60+ km/h · GPS tagged every frame

Upload to AI-RAMS

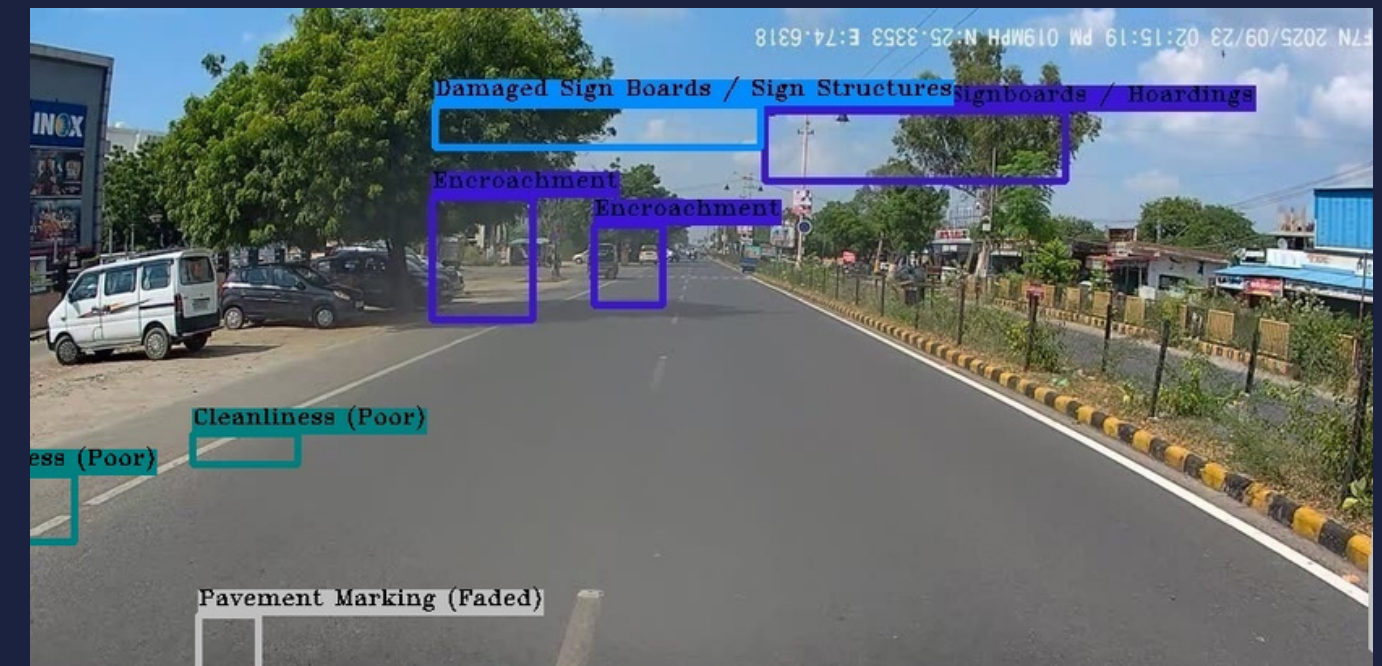
Auto-sync · No manual tagging

AI analyses video

140+ parameters · Engineering standards

Receive intelligence

GIS dashboard · PDF report · Priority list





140+ Parameters. Three Pillars.

Pavement Distress

- Potholes — Count, Severity & Area
- Cracking — Longitudinal, Transverse, Alligator
- Rutting & Deformation
- Shoulder — Rain Cuts, Edge Drop, Unevenness
- Shoulder Vegetation Growth
- Water Stagnation / Drainage Issues
- Carriageway & Accessway Condition

Road Assets & Inventory

- Kerb Condition & Painting
- Drainage Cover Slabs
- Footpath & Paver Blocks
- Highway Lighting — Damaged / Missing
- Bus Bay & Truck Lay-By Facilities
- Structures — Bridges, Flyovers, Culverts & More
- ITS Assets — CCTV, DMS, RWIS, Signals
- Directional & Street Signages
- Beautification Assets
- Cleanliness — Litter & Debris

Safety Parameters

- Signage — Damaged, Missing & Low Visibility
- Pavement Markings — Faded & Low Visibility
- Crash Barriers — CC & Metal Beam
- Pedestrian Guard Rails
- Road Studs & Hazard Markers
- Rumble Strips & Safety Devices
- Work Zone Safety Compliance
- Unauthorized Encroachments
- Vegetation & Sight Distance Issues
- ITS Safety — Emergency Phones, Signals, LCS

Raw Detections → Actionable Road Intelligence

AI Detection	Condition Index	Priority Output
→ Defect type & location → Severity rating → Extent & area → GPS coordinates	→ PCI-based scoring → IRI-equivalent roughness → IRC/ASTM/PAS 2161 aligned → 0–100 scale	→ Good / Fair / Poor / Critical → Segment-level ranking → Maintenance priority list → Cost estimation basis

WHAT YOU RECEIVE

The Complete Deliverable Package

01

GIS Dashboard

Web-based live dashboard with interactive filters by road, defect type, severity, and location. Always up to date.

02

Network Condition Report

Comprehensive PDF with PCI scores, defect breakdown, severity maps, and IRC-aligned recommendations.

03

Asset Inventory Register

Complete register of 80+ asset types — geo-tagged, condition-scored, exportable as GIS layer + Excel.

04

Maintenance Priority List

Defect-wise ranked action list with estimated quantities. Ready for DPR and maintenance planning.

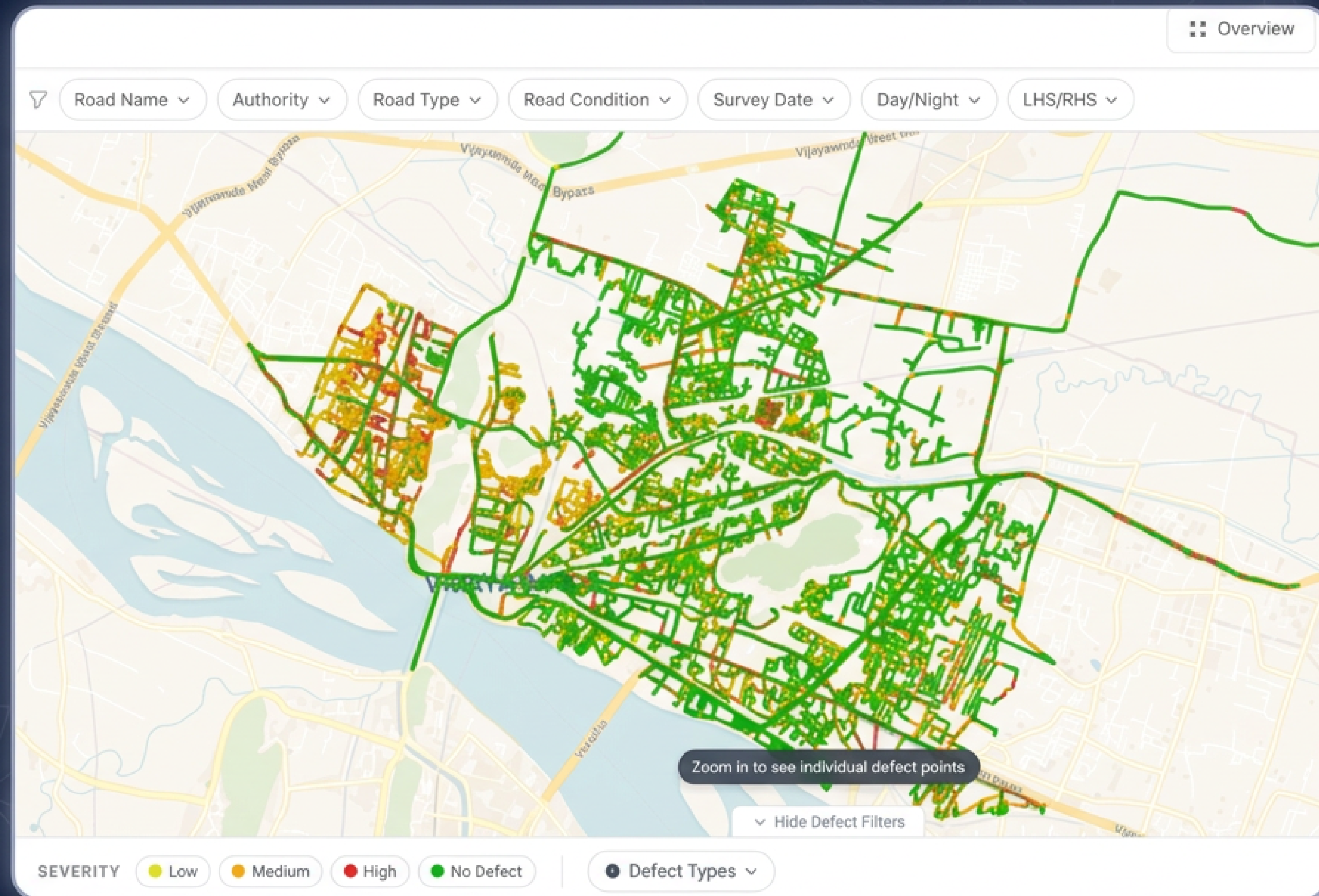
05

Time-Series Comparison

For repeat surveys — track condition change over time, measure maintenance impact, and plan cycles.

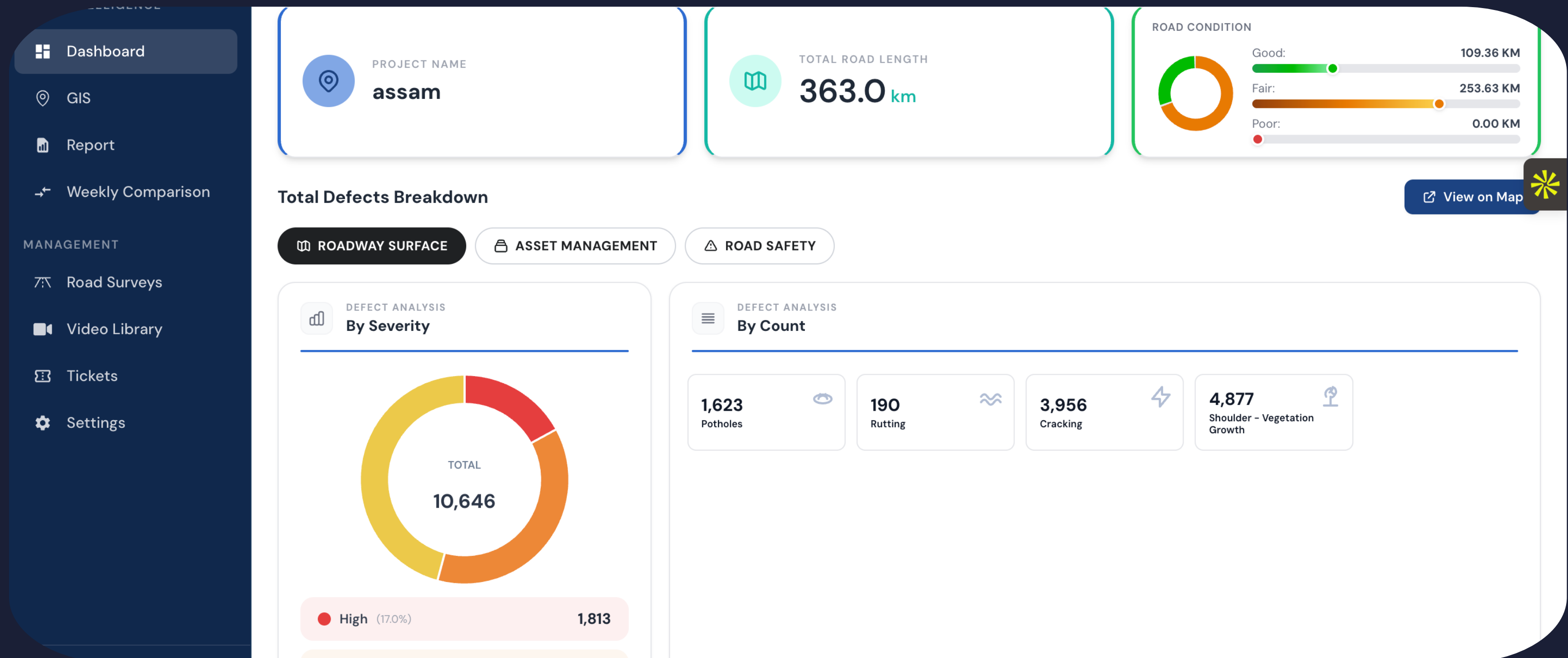
GIS Dashboard.

Web-based live dashboard with interactive filters by road, defect type, severity, and location. Always current. Shareable across teams.



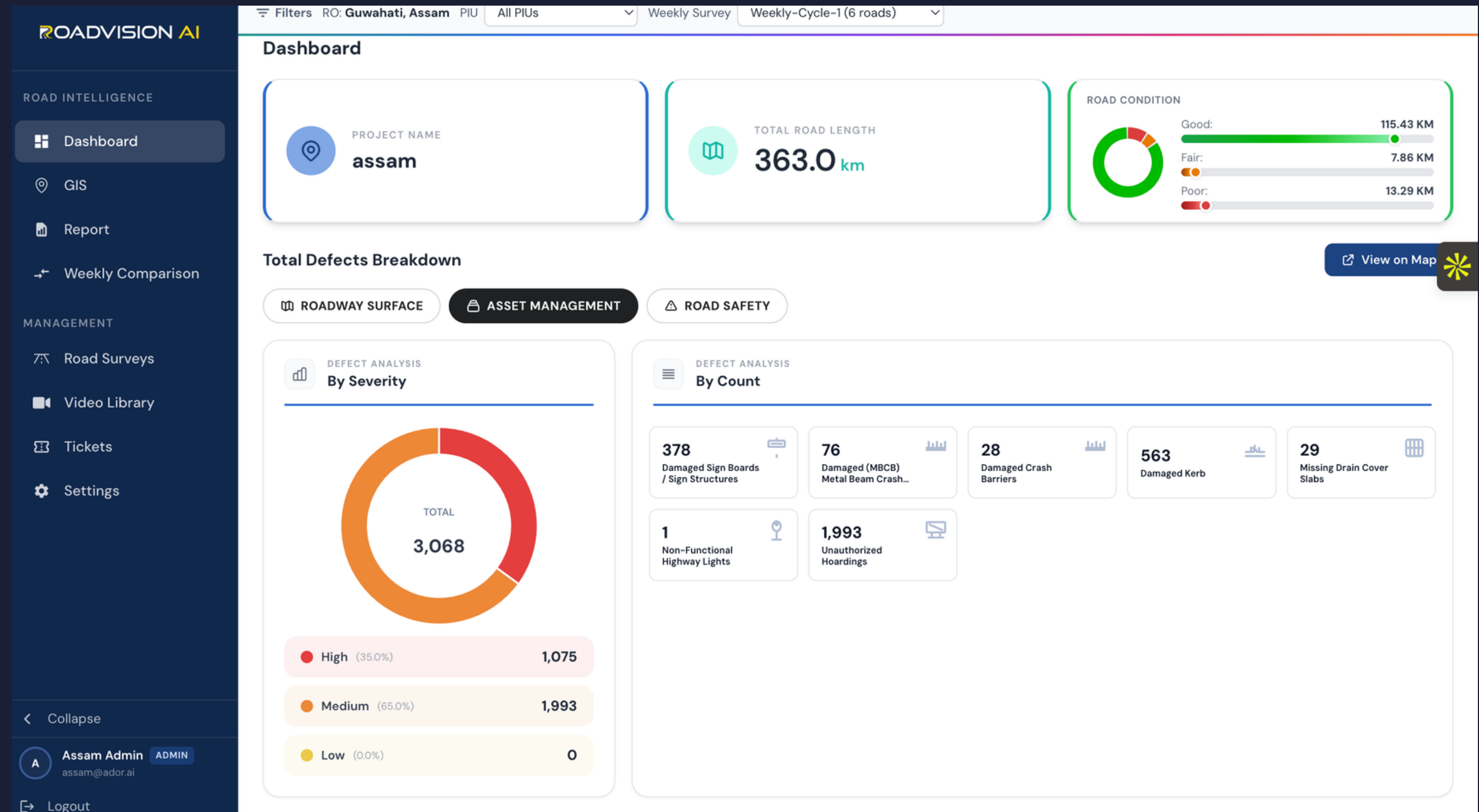
Network Condition Report

Comprehensive PDF with PCI scores, defect breakdown, severity maps, and IRC-aligned recommendations. Audit-ready reports.



Asset Inventory Register

Complete register of 80+ asset types geo-tagged, condition-scored, exportable as GIS layer and Excel. Ready for RAMS integration.



Maintenance Priority List

Defect-wise ranked action list with estimated quantities and cost basis. Ready for DPR preparation and budget planning

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himmatADMIN

bhilwara@roadvision.ai

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SURVEY CYCLE		DEFECT TYPES	
Filters	All Surveys	Potholes	

<

PotholesHIGH

1 road affected - 37 occurrences

Export XLSX

FILTER		All Authorities	All Road Types	All Roads						
SR.NO	DEFECT TYPE	SEVERITY	ROAD NAME	AGENCY	ROAD TYPE	START POINT	END POINT	SIDE	SURVEY DATE	ACTIONS
1	Potholes	Low	Ajmer Road - Subhash Nagar	—	—	R K Colony, Bhilwara, Rajasthan 311001, India	Road, Sector-C, Subhash Nagar, Bhilwara, Rajasthan 311001, India	—	Mon, Nov 17, 2025	View on Map
2	Potholes	Low	Ajmer Road - Subhash Nagar	—	—	R K Colony, Bhilwara, Rajasthan 311001, India	Road, Sector-C, Subhash Nagar, Bhilwara, Rajasthan 311001, India	—	Mon, Nov 17, 2025	View on Map
3	Potholes	Low	Ajmer Road - Subhash Nagar	—	—	R K Colony, Bhilwara, Rajasthan 311001, India	Road, Sector-C, Subhash Nagar, Bhilwara, Rajasthan 311001, India	—	Mon, Nov 17, 2025	View on Map
4	Potholes	Low	Ajmer Road - Subhash Nagar	—	—	R K Colony, Bhilwara, Rajasthan 311001, India	Road, Sector-C, Subhash Nagar, Bhilwara, Rajasthan 311001, India	—	Mon, Nov 17, 2025	View on Map
5	Potholes	Low	Ajmer Road - Subhash Nagar	—	—	R K Colony, Bhilwara, Rajasthan 311001, India	Road, Sector-C, Subhash Nagar, Bhilwara, Rajasthan 311001, India	—	Mon, Nov 17, 2025	View on Map
6	Potholes	Low	Ajmer Road - Subhash Nagar	—	—	R K Colony, Bhilwara, Rajasthan 311001, India	Road, Sector-C, Subhash Nagar, Bhilwara, Rajasthan 311001, India	—	Mon, Nov 17, 2025	View on Map
7	Potholes	Low	Ajmer Road - Subhash Nagar	—	—	R K Colony, Bhilwara, Rajasthan 311001, India	Road, Sector-C, Subhash Nagar, Bhilwara, Rajasthan 311001, India	—	Mon, Nov 17, 2025	View on Map
8	Potholes	Low	Ajmer Road - Subhash Nagar	—	—	R K Colony, Bhilwara, Rajasthan 311001, India	Road, Sector-C, Subhash Nagar, Bhilwara, Rajasthan 311001, India	—	Mon, Nov 17, 2025	View on Map
9	Potholes	Low	Ajmer Road - Subhash Nagar	—	—	R K Colony, Bhilwara, Rajasthan 311001, India	Road, Sector-C, Subhash Nagar, Bhilwara, Rajasthan 311001, India	—	Mon, Nov 17, 2025	View on Map
10	Potholes	Low	Ajmer Road - Subhash Nagar	—	—	R K Colony, Bhilwara, Rajasthan 311001, India	Road, Sector-C, Subhash Nagar, Bhilwara, Rajasthan 311001, India	—	Mon, Nov 17, 2025	View on Map

Time-Series Comparison

For repeat surveys track condition change over time, measure maintenance impact, identify deterioration trends, and plan survey cycles.

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himmatADMIN

bhilwara@roadvision.ai

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Side by Side

AI Analysis

RAW FRAME

AI ANALYZED

AI DETECTED

0:00 / 5:00

0:00 / 5:00

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Survey Timeline

Anomalies Detected

R492149 · SRV-2025-Q4-12

CURRENTLY VIEWING

SURVEY	ANOMALY	OBSERVATION	DATE
SRV-2025-Q4-12	Detected	High Severity detected	20 Nov 2025

View All →

Anomalies Detected

R492149 · SRV-2025-Q4-11

SURVEY	ANOMALY	OBSERVATION	DATE
SRV-2025-Q4-11	Detected	High Severity detected	20 Nov 2025

View All →

Anomalies Detected

R492149 · SRV-2025-Q4-10



Let us survey your road network.

Hardik Dave · Founder & CEO

hardik@roadvision.ai · +919768725607

www.roadvision.ai