

COMMERCIAL PROPERTY AERIAL CONDITION SCREENING REPORT

Drone-Assisted Property Intelligence | SION Assessment Framework™ v1.0



Memphis-Area Commercial Property | July 2026 | ~4.2 Acres

SPIS SCORE	OVERALL RATING	TOTAL IMAGES	ASSESSMENT DATE
54 / 100	FAIR	~1,733	July 2026

Assessment Scope	Pavement Systems Roof Membrane Drainage Site Infrastructure
Data Collection	333 nadir mapping images (orthomosaic) 1,100 images (3D mesh) 300 manual oblique/detail frames
Methodology	SION Assessment Framework™ v1.0 — Multi-altitude drone flight protocol
Data Products	Georeferenced orthomosaic 3D mesh model (DJI Terra) 42 selected detail frames reviewed

DEMONSTRATION REPORT — REAL AERIAL DATA

This report is produced from real drone-collected aerial imagery of a Memphis-area commercial property. All client, property owner, and site-identifying information has been removed. This document is intended to demonstrate the SION Property Intelligence™ deliverable format and does not represent an active client engagement.

EXECUTIVE SUMMARY

SION Solutions Corp. conducted a drone-assisted commercial property condition screening of a Memphis-area retail/commercial site in July 2026. The full project dataset comprised approximately 1,733 aerial images: 333 nadir mapping images for orthomosaic production, 1,100 images for 3D mesh processing via DJI Terra, and 300 manual oblique and detail frames. Forty-two selected frames from the oblique and detail collection were reviewed for visible condition documentation.

Assessment through the SION Assessment Framework™ v1.0 yields a pavement SION Property Condition Score™ (SPCS) of 41 out of 100 (POOR) for the parking field and drive lanes. The overall SION Property Intelligence Score™ (SPIS), which accounts for all assessed property systems including the roof membrane (SPCS 82, GOOD), is 54 out of 100 (FAIR). This rating reflects widespread pavement deterioration consistent with a property that has experienced deferred maintenance over multiple years.

Of the 42 reviewed detail frames, 1 showed critical-level visible distress, 3 showed serious-level distress, 33 showed poor-level distress, and 5 showed fair-level distress. No zones were rated in good condition. Roof-level observations from the orthomosaic indicate a generally intact membrane with localized staining and penetration areas that warrant qualified follow-up inspection.

The dominant visible pavement conditions include surface oxidation, apparent alligator cracking, faded striping, deteriorated patching, and visible pavement openings with associated drainage concerns. These conditions present both safety and liability exposure for the property owner and warrant a phased remediation strategy developed with qualified paving contractors.

KEY ASSESSMENT METRICS

METRIC	VALUE	NOTES
SPCS — Pavement Systems	41 / 100	Pavement systems only — not a certified ASTM survey
Pavement Condition Rating	POOR	Significant deterioration; contractor evaluation required
Total Images in Dataset	~1,733	333 ortho + 1,100 mesh + 300 oblique/detail
Detail Frames Reviewed	42	Selected from oblique/detail collection pass
Critical Observation Zones	1	Prompt ground verification recommended
Serious Observation Zones	3	Priority evaluation within 6 months
Poor Observation Zones	33	Rehabilitation evaluation within 12 months
Fair Observation Zones	5	Preventive maintenance evaluation within 24 months
Estimated Site Area	~182,952 sq ft	~4.2 acres (aerial estimate — not a surveyed measurement)
Assessment Date	July 2026	Drone-assisted multi-pass protocol
Budget Development	Recommended	Qualified contractors should confirm scope and pricing

ASSESSMENT NOTE

The SION Property Condition Score™ (SPCS) is derived through the SION Assessment Framework™ v1.0, a documented methodology for evaluating observable property systems via aerial imagery. SPCS does not constitute a formal ASTM D6433 Pavement Condition Index survey. All observations are based on visual review of aerial imagery only. Qualified specialists should confirm findings prior to any remediation.

SYSTEM-LEVEL CONDITION SCORES

PROPERTY SYSTEM	SPCS SCORE	RATING	NOTES
Pavement — Parking Field	41 / 100	POOR	Widespread visible cracking, oxidation, deteriorated patches
Pavement — Drive Lanes	38 / 100	POOR	Apparent alligator cracking, visible pavement openings, drainage concerns
Striping / Line Marking	25 / 100	SERIOUS	Faded and missing throughout; accessible stall markings unclear
Drainage System	52 / 100	POOR	4 inlet locations showing visible concern indicators
Roof — Membrane	82 / 100	GOOD	Intact overall; staining and discoloration observed
Roof — HVAC / Penetrations	N/A	NOT SCORED	Ground verification required — cannot confirm from imagery
Curbs & Wheel Stops	74 / 100	FAIR	Moderate visible wear; no critical failures observed
Sidewalks / Pedestrian Areas	90 / 100	EXCELLENT	Limited visibility; recommend ground-level verification
ADA Compliance	N/A	NOT SCORED	Striping degraded; accessible routes need qualified confirmation
Site Lighting	N/A	NOT SCORED	Requires separate ground-level inspection

OVERALL SION PROPERTY INTELLIGENCE SCORE™

54 / 100 — FAIR

SPIS CALCULATION — WEIGHTED AVERAGE

The SION Property Intelligence Score™ (SPIS) is calculated as a weighted average of all assessed property systems. Systems scored N/A have their weights redistributed proportionally among assessed systems.

SYSTEM	SPCS	BASE WEIGHT	EFF. WEIGHT	CONTRIBUTION
Pavement — Parking Field	41	20%	24.1%	9.9
Pavement — Drive Lanes	38	15%	18.1%	6.9
Striping / Line Marking	25	10%	12.0%	3.0
Drainage System	52	10%	12.0%	6.3

Roof — Membrane	82	15%	18.1%	14.8
Roof — HVAC / Penetrations	N/A	5%	Redistributed	—
Curbs & Wheel Stops	74	5%	6.0%	4.5
Sidewalks / Pedestrian Areas	90	8%	9.6%	8.7
ADA Compliance	N/A	7%	Redistributed	—
Site Lighting	N/A	5%	Redistributed	—
TOTAL / SPIS	—	100%	100%	54 / 100

Effective weights are recalculated after excluding N/A systems (Roof HVAC 5%, ADA 7%, Site Lighting 5% = 17% redistributed). Methodology: SION Assessment Framework™ v1.0.

PROPERTY INTELLIGENCE DASHBOARD

Rapid-reference summary of observed conditions across all major property systems. Ratings are based on the SION Assessment Framework™ v1.0 applied to aerial imagery.

Pavement — Parking Field	POOR	Pavement — Drive Lanes	POOR
Widespread visible cracking, oxidation, deteriorated patches		Apparent alligator cracking, visible pavement openings, drainage concerns	
Striping / Line Marking	SERIOUS	Drainage System	POOR
Faded and missing throughout; accessible stall markings unclear		4 inlet locations showing visible concern indicators	
Roof — Membrane	GOOD	Roof — HVAC / Penetrations	NOT SCORED
Intact overall; staining and discoloration observed		Ground verification required — cannot confirm from imagery	
Roof — Drainage / Scuppers	NOT SCORED	Curbs & Wheel Stops	FAIR
Possible ponding indicator visible in north quadrant		Moderate visible wear; no critical failures observed	
Sidewalks / Pedestrian Areas	EXCELLENT	ADA Compliance	NOT SCORED
Limited visibility; recommend ground-level verification		Striping degraded; accessible routes need qualified confirmation	
Site Lighting	NOT SCORED		
Requires separate ground-level inspection			

DASHBOARD NOTE

Dashboard ratings are derived through the SION Assessment Framework™ v1.0. Systems marked 'NOT SCORED' require follow-up ground-level inspection to confirm findings. This dashboard does not replace a licensed engineering assessment. All observations are based on visual review of aerial imagery only.

SITE OVERVIEW — AERIAL IMAGERY

The following aerial views were captured during the cardinal/oblique pass at approximately 300–400 ft AGL. These images provide full-site context for the pavement and roof assessment findings documented in subsequent sections.



FIGURE 1: Full-site orthomosaic overview — Memphis-Area Commercial Property | July 2026

Figure 1: Full-site aerial orthomosaic showing complete site extent, parking field condition, and building context. Widespread pavement surface weathering and irregular surface patterning visible from altitude across the parking field.

SITE AREA
~4.2 acres

FLIGHT ALTITUDE
300–400 ft AGL

TOTAL IMAGES
~1,733

DATA PRODUCTS
Ortho + 3D Mesh

BUILDING ROOF — CLOSE-RANGE ORTHOMOSAIC

The close-range orthomosaic below was captured at lower altitude to maximize roof surface resolution. This view provides the basis for the roof condition observations documented in Section 9. The white/light-grey area represents the roof membrane surface. HVAC equipment, penetrations, and drainage features are visible.



FIGURE 2: Close-range roof orthomosaic — Memphis-Area Commercial Property | July 2026

Figure 2: Close-range aerial orthomosaic of building roof. Roof membrane, HVAC units, penetrations, and drainage features visible. Roof membrane appears generally intact. Staining, discoloration, and penetration areas flagged for qualified follow-up inspection.

MEMBRANE RATING	HVAC UNITS	PENETRATIONS	DRAINAGE
GOOD — 82/100	Visible — Verify Curbs	Multiple — Verify Seals	Needs Verification

ORTHOMOSAIC ANALYSIS — PAVEMENT CONDITIONS

The georeferenced orthomosaic provides a precise, top-down view of the entire site. The annotated image below identifies six primary observation zones across the parking field and drive lanes. Each callout corresponds to the visible condition indicators detailed in the observation register below.



FIGURE 5: Annotated orthomosaic — Pavement Condition Observations | Memphis-Area Commercial Property | July 2026

Figure 5: Annotated orthomosaic — pavement condition observations. Zones 1-6 identify primary locations across the site.

ZONE	VISIBLE CONDITION	SEVERITY INDICATOR	RECOMMENDED NEXT STEP
1	Surface oxidation / weathering	Moderate	Paving-contractor evaluation recommended
2	Visible distress consistent with advanced cracking	Elevated	Refer for paving-contractor evaluation
3	Visible pavement openings / pothole-like deterioration	Elevated	Ground verification recommended — prompt action
4	Deteriorated patch areas	Moderate	Paving-contractor evaluation recommended
5	Visible drainage concern — possible flow restriction	Moderate	Ground verification; drainage contractor evaluation
6	Faded / missing striping throughout	Moderate	Restriping evaluation recommended

DISTRESS ANALYSIS SUMMARY

SION's structured visual analysis process evaluated each of the 42 selected detail and oblique frames for the presence and severity of standard pavement distress types. The following table summarizes the frequency of each visible condition type observed, providing a quantitative basis for the remediation scope.

VISIBLE CONDITION TYPE	FRAMES AFFECTED	% OF FRAMES	SEVERITY IMPLICATION
Surface oxidation / weathering	34	81%	Surface-level — accelerates cracking if untreated
Faded / missing striping	30	71%	Safety concern — restriping evaluation required
Deteriorated patch areas	29	69%	Prior repair — evaluate patch integrity
Visible cracking	27	64%	Structural concern — crack sealing evaluation required
Visible distress consistent with advanced cracking	19	45%	Advanced deterioration — paving-contractor evaluation required
Visible pavement openings	12	29%	Safety concern — prompt ground verification recommended
Visible drainage concern areas	12	29%	Base course risk — drainage contractor evaluation required
Surface raveling	11	26%	Surface deterioration — overlay or seal coat evaluation

NOTE ON FRAME PERCENTAGES

'% of Frames' represents the percentage of the 42 reviewed detail and oblique frames in which each condition type was visible — not a measurement of site area affected. Actual treatment areas require ground-level verification and contractor scoping.

CONDITION SEVERITY DISTRIBUTION

CONDITION	ZONE	% OF FRAMES	SPCS RANGE	DESCRIPTION
CRITICAL	1	2%	0-25	Visible structural-level distress — prompt ground verification required
SERIOUS	3	7%	26-40	Advanced visible deterioration — priority evaluation within 6 months

POOR	33	79%	41-55	Significant visible deterioration — rehabilitation evaluation within 12 months
FAIR	5	12%	56-70	Moderate visible wear — preventive maintenance evaluation within 24 months
GOOD	0	0%	71-85	Acceptable visible condition — routine maintenance only

ZONE-BY-ZONE FINDINGS

The following section documents representative findings from key inspection zones across the site. Each entry includes the zone location, observed visible conditions, SION Property Condition Score™ estimate, and recommended next step. Findings are based on visual review of oblique low-altitude collection pass imagery.

SERIOUS | SPCS: 40 | Main Parking Field — North Section

Visible conditions:	Cracking, apparent alligator cracking, deteriorated patching, oxidation, raveling, drainage concerns
Observation:	The asphalt pavement exhibits significant visible signs of aging and deterioration, including widespread cracking, localized apparent alligator cracking, and oxidation. Previous patching efforts are visible but appear to have not arrested further deterioration.
Next step:	Paving-contractor evaluation recommended — full-depth patch + crack seal + overlay scope to be confirmed

SERIOUS | SPCS: 35 | Main Parking Field — Center with Landscaped Islands

Visible conditions:	Cracking, apparent alligator cracking, visible pavement openings, deteriorated patching, oxidation, raveling, faded striping
Observation:	The parking field exhibits significant visible deterioration, characterized by extensive cracking, apparent alligator cracking, and visible pavement openings. The pavement shows signs of advanced oxidation and raveling, indicating visible loss of surface integrity.
Next step:	Paving-contractor evaluation recommended — full-depth patch + crack seal + overlay scope to be confirmed

POOR | SPCS: 45 | Building Perimeter, Drive Lanes, and Adjacent Parking

Visible conditions:	Block cracking, longitudinal cracking, transverse cracking, oxidation, raveling, faded striping, sediment accumulation
Observation:	Extensive block and longitudinal cracking is present in the foreground drive lanes, showing signs of aging crack seal repairs. The overall asphalt surface is highly oxidized with severe visible weathering.
Next step:	Paving-contractor evaluation recommended — mill and overlay for heavily cracked drive lanes; crack seal and restriping for remaining areas

SERIOUS | SPCS: 35 | Main Parking Field — South Section and Connecting Drive Lane

Visible conditions:	Cracking, apparent alligator cracking, oxidation, faded striping, deteriorated patching, visible pavement openings, drainage concerns
Observation:	The asphalt pavement exhibits significant visible signs of aging and deterioration, including widespread cracking, oxidation, and faded striping. Several areas show deteriorated patches and early-stage apparent alligator cracking.
Next step:	Paving-contractor evaluation recommended — patching + crack seal + overlay scope to be confirmed

ROOF CONDITION DOCUMENTATION

The orthomosaic collected during the July 2026 flight provides a top-down view of the building roof at sufficient resolution to identify visible membrane conditions, drainage indicators, HVAC equipment placement, and penetration locations. The following observations are based on visual review of aerial imagery and are intended as a preliminary condition screening. A qualified roofing professional should be engaged to confirm findings prior to any remediation.

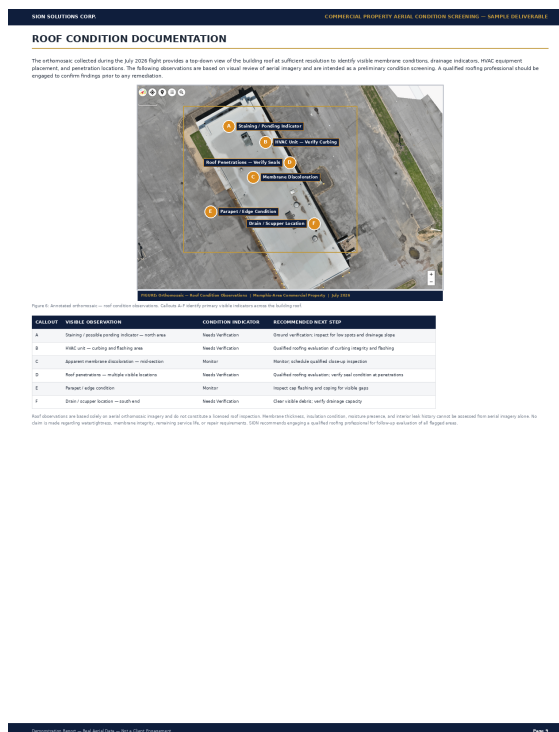


FIGURE 6: Annotated orthomosaic — Roof Condition Observations | Memphis-Area Commercial Property | July 2026

Figure 6: Annotated orthomosaic — roof condition observations. Callouts A-F identify primary visible indicators across the building roof.

CALL OUT	VISIBLE OBSERVATION	CONDITION INDICATOR	RECOMMENDED NEXT STEP
A	Staining / possible ponding indicator — north area	Needs Verification	Ground verification; inspect for low spots and drainage slope
B	HVAC unit — curbing and flashing area	Needs Verification	Qualified roofing evaluation of curbing integrity and flashing
C	Apparent membrane discoloration — mid-section	Monitor	Monitor; schedule qualified close-up inspection
D	Roof penetrations — multiple visible locations	Needs Verification	Qualified roofing evaluation; verify seal condition at penetrations
E	Parapet / edge condition	Monitor	Inspect cap flashing and coping for visible gaps
F	Drain / scupper location — south end	Needs Verification	Clear visible debris; verify drainage capacity

ROOF ASSESSMENT DISCLAIMER

Roof observations are based solely on aerial orthomosaic imagery and do not constitute a licensed roof inspection. Membrane thickness, insulation condition, moisture presence, and interior leak history cannot be assessed from aerial imagery alone. No claim is made regarding watertightness, membrane integrity, remaining service life, or repair requirements. SION recommends engaging a qualified roofing professional for follow-up evaluation of all flagged areas.

BUDGET DEVELOPMENT — RECOMMENDED

Based on the pavement condition observations and distress analysis, SION Solutions has developed a preliminary remediation scope framework for this site. Specific quantities, unit costs, and total project costs require confirmation by qualified paving contractors through ground-level verification and competitive bidding.

BUDGET DEVELOPMENT RECOMMENDED

Qualified contractors should verify repair areas, treatment requirements, quantities, and current market pricing. SION's mapped observations can support contractor scoping, bid comparison, and post-work documentation.

PRELIMINARY SCOPE FRAMEWORK

SCOPE ITEM	EST. AREA	UNIT COST BASIS	NOTES
Full-Depth Patch + Overlay (Critical/Serious Zones, ~25% of site)	~45,700 sq ft (aerial estimate)	Contractor bid required	Quantities and unit costs require ground verification and contractor confirmation
Crack Seal + 2" Asphalt Overlay (Poor Condition Zones, ~45% of site)	~82,300 sq ft (aerial estimate)	Contractor bid required	Treatment scope requires contractor evaluation of actual pavement depth and condition
Crack Fill + Seal Coat (Fair Condition Zones, ~20% of site)	~36,600 sq ft (aerial estimate)	Contractor bid required	Preventive treatment — contractor to confirm applicability and timing
Full Site Restriping (All stalls, drive lanes, accessible markings)	Full site	Contractor bid required	Accessible stall markings require qualified ADA evaluation
Drainage Inlet Repair / Replacement (4 identified concern locations)	4 locations (aerial estimate)	Contractor bid required	Drainage contractor to verify inlet condition and repair scope
Mobilization & Site Preparation	Lump Sum	Contractor bid required	Included in contractor bid

BUDGET PLANNING NOTE

Aerial area estimates are derived from orthomosaic analysis and are not surveyed measurements. Do not apply unit prices to these estimates without contractor verification of actual pavement areas, depths, and conditions. SION Solutions can facilitate competitive bid procurement through its contractor network upon request.

RECOMMENDED REMEDIATION PHASES

The following phased remediation framework is designed to address site deficiencies in priority order, balancing urgency with budget planning. Phases 2 and 4 should be executed concurrently to maximize mobilization efficiency and minimize disruption to site operations. All timelines and scopes require contractor confirmation.

PHASE 1 — EMERGENCY RESPONSE

Timeline: 0-60 Days | Priority: CRITICAL

- Ground verification and temporary patching of all visible pavement openings and standing water depressions
- Drainage inlet clearing and evaluation at all 4 identified concern locations
- Install temporary safety signage at identified hazard zones pending contractor evaluation

PHASE 2 — STRUCTURAL REHABILITATION

Timeline: 3-6 Months | Priority: HIGH

- Full-depth patching of all apparent alligator-cracked and structurally deteriorated zones (~25% of site — contractor to verify)
- Mill and 2" overlay on severely deteriorated drive lanes and parking field sections
- Sub-base evaluation and repair where base deterioration is confirmed by contractor

PHASE 3 — SURFACE RESTORATION

Timeline: 6-12 Months | Priority: HIGH

- Crack fill and seal coat application across all fair-condition zones (~20% of site — contractor to verify)
- Full-site restriping including all parking stalls, drive lanes, fire lanes, and accessible stall markings
- Accessible route markings to be confirmed by qualified ADA evaluation prior to restriping

PHASE 4 — DRAINAGE CORRECTION

Timeline: Concurrent with Phase 2 |
Priority: HIGH

- Repair or replace 4 identified drainage inlet concern locations — contractor to confirm scope
- Evaluate sub-surface drainage adequacy in visible ponding zones
- Regrade low spots contributing to visible standing water accumulation

ABOUT SION SOLUTIONS CORP.

SION Solutions Corp. is a veteran owned business providing drone-assisted property intelligence services to commercial real estate owners, property managers, facilities teams, and government clients across the Mid-South region. Founded by Ivory Cooper, a U.S. Navy veteran and retired FAA Aviation Safety Inspector, SION combines aerial data collection, structured visual analysis, and professional review to deliver property condition screenings that are faster, more comprehensive, and more actionable than traditional ground-level-only methods.

SION's structured review process applies the SION Assessment Framework™ v1.0, producing standardized SION Property Condition Scores™, zone-level condition mapping, and phased remediation frameworks — all delivered in a professional client-facing report. SION's contractor network enables seamless transition from assessment to procurement, ensuring clients receive competitive bids from qualified contractors without the overhead of managing the process independently.

FOUNDER**BACKGROUND****CERTIFICATION****SERVICE AREA**

Ivory Cooper, CEO | **U.S. Navy Veteran** | **Retired FAA Aviation Safety Inspector** | **Veteran Owned Business** | **Mid-South Region**

CONTACT INFORMATION

Company	SION Solutions Corp.
Principal	Ivory Cooper, CEO
Email	ivory@sionsolutions.net
Phone	901-290-8372
Business Type	Veteran Owned Business
Service Area	Mid-South Region (Memphis, TN and surrounding)
Website	sionsolutions.net

WHAT EVERY SION ASSESSMENT DELIVERS

- ✓ Georeferenced orthomosaic of the full site
- ✓ 3D mesh model processed through DJI Terra
- ✓ SION Property Intelligence Score™ (SPIS) — overall and by system
- ✓ Zone-level condition mapping with observation IDs
- ✓ Phased remediation framework with priority sequencing
- ✓ Professional client-facing PDF report
- ✓ Contractor bid support and procurement facilitation available

PROFESSIONAL DISCLAIMER

This report was prepared using the SION Property Intelligence™ platform and the SION Assessment Framework™ v1.0. All findings are based on visual analysis of drone imagery. This report does not constitute a structural engineering assessment, a certified ASTM PCI survey, a licensed roof inspection, or a professional engineering opinion. For projects requiring licensed engineering certification, SION can coordinate with licensed civil engineers in its professional network.

READY TO SEE YOUR PROPERTY FROM A DIFFERENT ANGLE?

This sample report was produced from real drone-collected aerial data of a Memphis-area commercial property. Every SION Property Intelligence™ assessment delivers this same level of documentation — georeferenced orthomosaics, zone-level condition scoring, phased remediation frameworks, and a professional client-facing report — for your property.

Request a Property Assessment

ivory@sionsolutions.net | 901-290-8372 | sionsolutions.net

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SION Solutions Corp. | Veteran Owned Business | Mid-South Region | Memphis, TN